

OCCUPATIONAL STRESS RELATED TO NURSING CARE IN INTENSIVE CARE

ESTRESSE OCUPACIONAL RELACIONADO À ASSISTÊNCIA DE ENFERMAGEM EM TERAPIA INTENSIVA

ESTRÉS OCUPACIONAL RELACIONADO CON LA ATENCIÓN DE ENFERMERÍA EN CUIDADOS INTENSIVOS

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Objective: to estimate the prevalence of occupational stress among nursing professionals working in the Intensive Care Unit and to identify its association with sociodemographic, professional and nursing care-related variables. **Method:** cross-sectional study, conducted in a teaching hospital in Salvador, Bahia, Brazil, with 54 professionals. Data were collected between February and March 2020 using the Bianchi Stress Scale and analyzed by the Stata Program. **Results:** the prevalence of occupational stress at medium or high level was 57.4%. Higher stress levels were significantly associated with shorter training time (p -value=0.05), being a nurse (p -value=0.00), facing patient death (p -value=0.01), attending to critically ill patients' relatives (p -value=0.00) and meeting the needs of family members (p -value=0.00). **Conclusion:** the high prevalence of occupational stress, as well as the associated factors identified, were essential information for the implementation of preventive strategies.

Descriptors: Occupational Stress. Nursing Care. Intensive Care Unit. Nursing Team. Nursing.

Objetivo: estimar a prevalência de estresse ocupacional entre profissionais de enfermagem que atuam em Unidade de Terapia Intensiva e identificar sua associação com variáveis sociodemográficas, profissionais e relacionadas à assistência de enfermagem. Método: estudo transversal, realizado em um hospital de ensino de Salvador, Bahia, Brasil, com 54 profissionais. Os dados foram coletados entre fevereiro e março de 2020 por meio da Escala Bianchi de Stress e analisados pelo Programa Stata. Resultados: a prevalência de estresse ocupacional em nível médio ou alto foi de 57,4%. Maiores níveis de estresse foram associados significativamente ao menor tempo de formação (p -valor=0,05), ser enfermeiro (p -valor=0,00), enfrentar a morte do paciente (p -valor=0,01), atender aos familiares dos pacientes críticos (p -valor=0,00) e atender às necessidades dos familiares (p -valor=0,00). Conclusão: a elevada

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prevalência de estresse ocupacional, bem como os fatores associados identificados, foram informações essenciais para implementação de estratégias preventivas.

Descritores: Estresse Ocupacional. Cuidados de Enfermagem. Unidade de Terapia Intensiva. Equipe de Enfermagem. Enfermagem.

Objetivo: estimar la prevalencia del estrés ocupacional entre los profesionales de enfermería que trabajan en la Unidad de Cuidados Intensivos e identificar su asociación con variables sociodemográficas, profesionales y de cuidados de enfermería. Método: estudio transversal, realizado en un hospital de enseñanza en Salvador, Bahía, Brasil, con 54 profesionales. Los datos fueron recopilados entre febrero y marzo de 2020 utilizando la Escala de Estrés de Bianchi y analizados por el Programa Stata. Resultados: la prevalencia del estrés ocupacional a nivel medio o alto fue del 57,4%. Los niveles de estrés más altos se asociaron significativamente con un tiempo de entrenamiento más corto (p -valor-0,05), ser una enfermera (p -valor-0,00), enfrentar la muerte del paciente (p -valor-0,01), atender a los familiares de los pacientes en estado crítico (p -value-0,00) y satisfacer las necesidades de los miembros de la familia (p -valor-0,00). Conclusión: la alta prevalencia del estrés ocupacional, así como los factores asociados identificados, fueron información esencial para la aplicación de estrategias preventivas.

Descritores: Estrés Ocupacional. Cuidado de Enfermería. Unidad de Cuidados Intensivos. Equipo de Enfermería. Enfermería.

Introduction

Stress is a state generated by the apprehension of external stimuli that trigger emotional arousal. This state contributes to the imbalance of homeostasis and the triggering of an adaptation reaction characterized by increased secretion of adrenaline and cortisol, causing systemic manifestations that, if persistent, can result in physiological and psychological disorders⁽¹⁾. When associated with work-related issues, it is called occupational stress⁽¹⁻²⁾.

Indeed, coping with occupational stress takes place individually and subjectively. Each person can react differently even when facing the same circumstances. The World Health Organization (WHO) admits that demands related to work, excessive pressure, knowledge, worker ability and their reactions capabilities to determine the manifestation of stress. Faced with a potentially stressful situation, the person's ability and resources to face it are confronted. Thus, a certain level of work stress can be considered acceptable when it contributes to keeping the professional alert, motivated and able to learn and work. When such pressure is excessive or difficult to control, there is an imbalance between the demands and pressures that the professional faces, on the one hand, and his knowledge and abilities to deal with it, on the other, thus raising the levels of work stress⁽²⁾.

Several factors contribute to the development of stress in nursing. Some of them are intrinsically related to the profession, such as dealing with pain and suffering, working with patients in terminal illness and death, urgent situations and those related to the organization, such as insufficient personnel dimensioning, work overload and difficulties in the relationship with the nursing team itself and with other professionals. As a consequence, there is an increase in the risks for the appearance of psychological disorders related to stress, dissatisfaction, demotivation, absenteeism, frequent job changes and abandonment of the profession. It is also added that, in addition to the psychological repercussions, there may be damage to the physical dimension of workers, such as cerebrovascular, cardiac and metabolic diseases⁽³⁻⁵⁾.

Intensive Care Units (ICU) are recognized as a sources of stress. They are complex and highly specialized care units. The incessant work associated with work overload and its own environmental conditions, such as low temperature, noise, lack of external vision, artificial lighting in the 24 hours of the day and access control can lead to emotional exhaustion and lead to a higher risk of stress⁽⁵⁻⁷⁾.

Occupational stress has negative effects for both the worker and the organization, as mentioned. For the organization, such effects

can be felt in disorganization, in the breaking of standard procedures and in the drop in productivity⁽⁸⁾. With regard to stress related to the work of intensive nursing, there is extensive documentation produced by several authors in Brazil⁽⁹⁻¹¹⁾ and in other countries^(5,7). Stress and fatigue are two important factors that contribute to the occurrence of errors in nursing, especially in the ICU. Fatigued professionals make more mistakes in clinical judgment or during medication administration and still fail to identify errors made by other team members^(7,12).

The aim of this article is to estimate the prevalence of occupational stress among nursing professionals working in the Intensive Care Unit and to identify its association with sociodemographic, professional and nursing care-related variables.

Method

The research respected the ethical principles contained in Resolution n. 466/2012, which deals with ethical issues related to research involving human beings. The project was approved by the Research Ethics Committee of the Teaching Hospital (TH), Certificate of Presentation for Ethical Appreciation (CAEE) n° 09111119.4.0000.0049.

Observational, cross-sectional and quantitative study. The writing of the manuscript was based on the criteria of the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE). It was held in a TH located in the city of Salvador, Bahia, Brazil. This institution belongs to the Unified Health System (SUS). It is a large hospital and outpatient unit, a reference in medium and high complexity, with 277 active beds and certified since 2004 as a teaching hospital by the Ministries of Health and Education. The TH has two adult intensive care units, comprising 20 beds for the care of critically ill patients. The nursing team consists of 40 nurses and 68 nursing technicians.

Fifty-four nursing professionals participated in the study, 18 nurses and 36 nursing technicians/auxiliaries. The purpose of the study

would cover all nursing workers who met the inclusion criterion of working in the ICU for more than six months. However, due to the pandemic of the new Coronavirus, data collection was interrupted, covering approximately 50% of the professionals. All employees who were on vacation and away due to illness or maternity leave were excluded from the study.

Data collection was carried out between February and March 2020 by a scientific initiation scholarship holder, duly trained by the researchers responsible. The instrument used was the Bianchi Stress Scale (BSS)⁽¹³⁾, constructed and validated in Brazil in 2009, which assesses stress in the performance of professional activities. It is a self-applicable scale, with 51 Likert items, ranging from 1 to 7: value 1 is considered as not very exhausting; the value 4, as medium; and value 7, as highly exhausting. The value 0 is reserved for when the professional does not perform the activity covered. This scale is divided into six domains: (A) relationship with other unions; (B) proper operation of the unit; (C) personnel administration; (D) patient care; (E) coordination of the unit's activities; and (F) working conditions⁽¹³⁾.

To assess the overall stress level, scores between 1 and 119 correspond to a low stress level; from 120 to 238, medium stress level; and from 239 to 357, a high level of stress⁽¹³⁾. Professionals with higher stress levels were those with scores equivalent to medium or high levels. The sociodemographic and professional variables investigated were: age, gender, race, marital status, religion, professional category, time of training, time of work in TH, employment, undergraduate and graduate.

The variables related to nursing care provided to the patient constitute domain D of the BSS, which is why he was elected to meet the objective of the study. This domain comprises: patient admission, physical examination, nursing prescription, assess patient conditions, meet the patient's needs, meet the needs of family members, guide the patient to self-care, guide family members to self-care of the patient, to supervise the nursing care provided, to guide

the patient's discharge, to provide nursing care, to attend to emergencies in the unit, to assist the relatives of critically ill patients, to face the death of a patient, to guide family members of critically ill patients. These variables were categorized as "Yes" and "No", referring to the greater wear of the professional for their execution (scores that ranged between 5 and 7 points), and none, to the lowest wear for the performance of the activities (scores that ranged between 0 and 4 points), respectively.

The data was organized in sheets on Microsoft Excel 2007 program, constituting the database. Then, they were transported to the Stata program version 12, in which the statistical analysis was carried out. Descriptive data were reported as frequencies and percentages. Fisher's Chi-square and exact tests were used to test the association between the variables. Odds ratio was calculated with their 95% confidence interval, using logistic regression. It was considered significant $p < 0.05$.

Result

Fifty-four nursing workers participated in the study, 18 (33.33%) nurses and 36

(67.67%) nursing technicians/auxiliaries. Most professionals (53.70%) were up to 39 years old; female (81.48%); married and/or in a civil union (62.96%); with training time equal to or greater than 11 years (68.52%); working time in the TH of up to 5 years (90.74%); contracted according to the Brazilian Labor Law Consolidation (90.74%); and graduated (70.37%).

The prevalence of high and medium stress level was 11.11% and 46.30%, respectively. The professionals with the highest stress proportions were those aged up to 39 years (58.62%), male (60%), single (60%), who reported having some religion (58.33%), with shorter training time (76.47%), shorter working time in TH (59.18%), post-graduates (74.07%) and belonged to the professional category of nurses (88.89%). The analysis showed a significant association between higher stress levels and the variables: shorter training time (p -value=0.05), graduate (p -value 0.01) and nurse (p -value=0.00). Logistic regression (OR-CI95%) showed an increase in the probability of higher stress levels in 113% for nurses, 57% for those with shorter training time and 81% for those with graduate studies (Table 1).

Table 1 – Association and Reason for chance of occupational stress in nursing professionals working in the Intensive Care Unit. Salvador, Bahia, Brazil – 2020. N=54

(continued)

Variable	n Total	Higher levels of occupational stress (%)	Odds Ratio (Confidence Interval 95%)	P-value
Age				
Up to 39 years	29	58.62	1.03 (0.64 – 1.66)	0.87
40 or more	23	56.52	1	
Gender				
Man	10	60.00	1	
Woman	44	56.82	0.94 (0.53 – 1.67)**	0.85
Race				
Non-Black	7	57.14	1	
Black	47	57.45	1.00 (0.50 – 1.99)**	0.98**
Civil Status				
Single	20	60.00	1	
Married/Stable relationship	34	55.88	0.93 (0.58 – 1.48)	0.76
Religion				
Yes	48	58.33	1	
No	4	50.00	0.85 (0.31 – 2.35)**	0.74**
Professional Category				
Nurse	18	88.89	2.13 (1.40 – 3.24)	0.00
Nursing Assistant/Technician	36	41.67	1	

Table 1 – Association and Reason for chance of occupational stress in nursing professionals working in the Intensive Care Unit. Salvador, Bahia, Brazil – 2020. N=54 (conclusion)

Variable	n Total	Higher levels of occupational stress (%)	Odds Ratio (Confidence Interval 95%)	P-valor
Training Time				
1 to 10 years	17	76.47	1.57 (1.02 – 2.40)	0.05
11 or more	37	48.65	1	
Working Time at the Teaching Hospital				
1 to 5 years	49	59.18	1	
10 or more	5	40.00	0.67 (0.22 – 2.02)**	0.40**
Employment Link				
CLT	49	57.14	1	
RJU	5	60.00	1.05 (0.49 – 2.23)**	0.90**
Has Graduation				
Yes	38	63.16	1.44 (0.78 – 2.64)	0.18
No	16	43.75	1	
Has Graduate				
Yes	27	74.07	1.81 (1.09 – 3.01)	0.01
No	27	40.74	1	

Source: Created by the authors.

* Chi-square; ** Fisher's Exact Test.

The activities related to nursing care provided to patients considered to be more exhausting in the ICU were: facing the death of patient n=31 (57.41%) (p-value=0.01), to guide relatives of critically ill patients n=26 (48.15%) (p-value=0.02), attend to emergencies in unit n=20 (37.04%) (p-value=0.00), to assist the relatives of critically ill patients n=20 (37.04%) (p-value=0.00), provide nursing care n=19 (35.19%) (p-value=0.00), to meet the needs of family members n=18 (33.33%) (p-value=0.00). The higher performance wear of all the activities mentioned was associated with

higher levels of occupational stress, according to Table 2.

Logistic regression (OR - CI95%) revealed an increase in the probability of higher stress levels in 143% for professionals who reported greater wear and tear during patient admission, in 135% for those with greater weariness during emergency care, in 135% among professionals with a higher level of weariness in the care of critically ill patients' relatives and in 113% for those with greater weariness in meeting the needs of family members (Table 2).

Table 2 – Association and Reason for chance of occupational stress related to the care provided, in nursing professionals working in the Intensive Care Unit. Salvador, Bahia, Brazil – 2020. N=54 (continued)

Variable	n Total	Higher levels of occupational stress (%)	Odds Ratio (Confidence Interval 95%)	P-valor
Patient admission				
Yes	15	100.00	2.43 (1.67 – 3.55)	0.00
No	39	41.03	1	
Physical examination				
Yes	8	87.50	1.67 (1.14 – 2.45)	0.06
No	46	52.17	1	
Nursing prescription				
Yes	4	100.00	1.85 (1.43 – 2.39)	0.07
No	50	54.00	1	

Table 2 – Association and Reason for chance of occupational stress related to the care provided, in nursing professionals working in the Intensive Care Unit. Salvador, Bahia, Brazil – 2020. N=54 (conclusion)

Variable	n Total	Higher levels of occupational stress (%)	Odds Ratio (Confidence Interval 95%)	P-valor
Assess patient conditions				
Yes	9	88.89	1.73 (1.20 – 2.51)	0.03
No	45	51.11	1	
Meet patient needs				
Yes	14	78.57	1.57 (1.03 – 2.37)	0.06
No	40	50.00	1	
Meet the needs of family members				
Yes	18	88.89	2.13 (1.40 – 3.24)	0.00
No	36	41.67	1	
Guide the patient to self-care				
Yes	9	100.00	2.04 (1.51 – 2.75)	0.00
No	45	48.89	1	
Guiding family members to self-care of the patient				
Yes	13	84.62	1.73 (1.17 – 2.56)	0.02
No	41	48.78	1	
Supervise the nursing care provided				
Yes	11	90.91	1.86 (1.30 – 2.66)	0.01
No	43	48,84	1	
Guide to patient discharge				
Yes	9	77.78	1.45 (0.93 – 2.270)	0.17
No	45	53.33	1	
Providing nursing care				
Yes	19	84.21	1.96 (1.27 – 3.01)	0.00
No	35	42.86	1	
Respond to emergencies in the unit				
Yes	20	90.00	2.35 (1.49 – 3.69)	0.00
No	34	38.24	1	
Serving the families of critically ill patients				
Yes	20	90.00	2.35 (1.49 – 3.69)	0.00
No	34	38.24	1	
Facing the death of the patient				
Yes	31	70.97	1.81 (1.03 – 3.16)	0.01
No	23	39.13	1	
Guide family members of critically ill patients				
Yes	26	73.08	1.70 (1.04 – 2.77)	0.02
No	28	42.86	1	

Source: Created by the authors.

Discussion

The results of this research showed, regarding the characterization of the participants, similarity with other studies published in Brazil and other countries, and may contribute to the knowledge about the occupational stress of ICU nursing. There was a predominance of female professionals (81.48%), aged up to 39 years (53.7%), married or civil union (62.96%), with a training time of more than 11 years (68.52%), with graduation as a minimum education (70.37%). The predominant working time of less than five years and the form of contract under the Regime of Consolidation of Labor Laws (CLT) is justified by the recent admission of the hospital to the Brazilian Hospital Services Company, responsible for the administration of the organization.

A study on stress in ICU nursing workers conducted in São Paulo (SP) also identified a higher percentage of female professionals (79.2%) and singles (50.9%)⁽¹⁴⁾. In Spain, a similar study identified, among the participants, 74.2% of women, with a mean age of 42.9 years and mean length of work in the ICU of 11.35 years⁽⁵⁾. In Sudan, a study with the same theme reported that the majority of participants were female (79.1%); in the age group between 20 and 29 years (76.3%); single (77.7%); and 50.7% had up to 3 years of work in the ICU⁽⁸⁾. In Mongolia, 95% of the nurses participating in research on the same subject were female⁽¹⁵⁾.

According to the instrument used in this research to quantify stress⁽¹³⁾, the professional is classified in the mean stress level with a minimum score of 120 points in the BSS; those with 239 to 357 points are ranked at the high level. The results of the research showed that 57.4% of the participants were affected by occupational stress at medium or high levels. These numbers expose the dimension of the problem in the field of study, since stress can cause damage to the physical and emotional health of workers, besides having repercussions on safety and health services, when working time is prolonged⁽⁵⁾. From the point of view of characteristics, the work performed in the

ICU imposes physical and mental demands⁽⁹⁻¹⁰⁾. Therefore, it is considered one of the most stressful within the hospital^(9,11).

The findings of the study converge with Data from a Brazilian research with 263 nurses working in the ICU, which identified approximately 60% of medium to high stress levels⁽¹⁶⁾. It is also similar to another study conducted among nursing professionals working in ICU slower hospitals in Brazilian capitals, whose result indicated a mean level of stress in 60.1% of nurses⁽¹⁷⁾. Another study conducted in the city of São Paulo (SP) identified that most professionals had mean levels of stress (77.4%) and 15.1% had high levels⁽¹⁴⁾, therefore a more expressive result than was identified in this study.

The relationship between nursing work in the ICU and stress is also reported by other authors in Brazil and other countries^(10-11,18). In Sudan, a study conducted in 14 public hospitals with intensive care nurses reported a high level of occupational stress⁽⁸⁾. In other countries, such as Iran⁽⁷⁾, Mongolia⁽¹⁵⁾, Spain and Portugal⁽¹⁹⁾, results that indicate high levels of stress are also reported.

The highest stress proportions were identified among professionals aged up to 39 years (58.62%), male (60%), single (60%), religious (58.33%), with shorter training time (76.47%), shorter working time in the field of research (59.18%), more years of study (74.07%) and among nurses (88.89%). The shortest training time, to be an specialist or to be a nurse were positively associated with stress.

When analyzing this result in the light of the current literature, there are similarities and points of distancing. Regarding the relationship between the time of graduation and the level of stress, results of a Brazilian research show dissimilarity with that found in this study. The authors show, in this research, that professionals with up to five years of training had lower levels of stress; nurses with 11 to 15 years of education had higher levels of stress⁽¹⁷⁾.

However, most of the literature found states that professionals who work in the ICU for a long time have lower levels of stress⁽⁶⁾ in agreement with what was found in this study. Nurses at the

beginning of their career may present higher levels of stress when compared to those who have been working longer in intensive care. Thus, the longer the working time in the ICU, the lower the occupational stress. This safety can be justified by the greater skill demonstrated by the more experienced professional in the face of emerging situations in intensive care^(6,18). Similar results are also reported in international studies^(8,19).

No data were found in the literature to support the differences in the highest stress levels among male professionals. The increase in stress among men becomes relevant, since nursing is predominantly exercised by women and it could be expected that the highest levels of stress would accompany this proportion. One of the possible reasons for this difference may be based on the individuality and subjectivity of stress perception. The interaction of the subject with stressors of various orders added to the individual coping capacity results in occupational stress⁽²⁰⁾, and it can be assumed that women in this research presented better adaptation to tensiogenic agents.

Being single and not having a child, as found in this research, was also related to stress in Portugal and Spain⁽¹⁹⁾. This result can be justified by the fact that higher levels of stress were found in younger professionals, who may not have yet opted for the experience of marital relationship or fatherhood/motherhood. Professionals who reported belonging to some religion presented higher percentages of stress, although no statistically significant difference was found. Paradoxically, the adoption of a religion and the practice of spirituality are described as coping strategies in the face of work stress⁽¹⁰⁾. It can be assumed that the high levels of stress found (57.4%) they would be above the ability of professionals to cope, thus constituting a risk for the occurrence of physical and mental illnesses.

As a matter of fact, authors show no significant difference in stress levels when qualification is compared⁽⁸⁾. This information differs from the results of this research, which found higher stress rates among post-graduate

professionals, which may be related to the fact that nurses also have more years of study than professionals with technical level and present a significant association with work stress in the ICU. The association between the highest level of stress and the nursing professional can be related to the role of nurses in health services. According to the Law of Professional Nursing Practice in Brazil, nurses are responsible for planning, organizing, coordinating and executing high complexity nursing care services, which demands a high degree of responsibility and increased workload⁽²¹⁾.

Among the activities related to nursing care provided to patients, according to domain D of the BSS⁽¹³⁾, actions such as coping with the death of the patient (57.41%; p-value=0.01), the care of emergency situations (37.04 %; p-value=0.00), nursing care was performed with critically ill patients (35.19%; p-value=0.00) and wear during patient admission were reported as more tensiogenic.

There are no questions that working in the ICU can be described as one of the most exhausting for the nursing professional. The severity of patients requires qualified and continuous care, and the care provided to them is considered complex, demanding responsibility in the treatment of life support, besides being accompanied by the feeling of helplessness in the face of a worse prognosis⁽²²⁾. For nurses who work in the ICU, some skills are required, such as leadership skills, knowledge transmission and emotional control in the face of limit situations. This whole conjuncture contributes to greater physical and emotional exhaustion⁽²³⁾.

Regarding patient care, dealing with death and treatment uncertainties are described as stressful. In this confrontation, the difficulty of nursing has already been emphasized in other publications^(4,22). It is believed that taking care of terminally ill patients can trigger feelings of anguish, impotence, loss, projection of their own death and frustration, due to the fact that they cannot maintain life. In view of this, we highlight the importance of establishing discussions on the subject since basic formation, so that the understanding of death as part of the

life course can contribute to its confrontation in a natural way⁽²⁴⁾.

Other care activities identified in this study were associated with higher levels of stress, such as guidance to family members of critically ill patients (p-value=0.02) and care for family members' needs (p-value=0.00), in addition to wear and tear during patient admission. A literature review research points to tensiogenic relationships between health professionals and patients' families, citing as demotivating and stressful the lack of understanding and recognition of nursing work by the family⁽²³⁾. It is also possible to mention the difficulties of nursing professionals in dealing with suffering and in meeting the emotional needs of patients and family members⁽²²⁾.

This study identified the probability of increased stress levels (135%) among professionals with a higher degree of wear and tear in the care of critically ill patients and 113% for those with greater wear and tear in meeting the needs of family members. This difficulty of nursing in dealing with the family can also result from situations that permeate nursing work, such as reduced number of professionals, development of a large number of activities, lack of material, little sensitivity and commitment to deal with the theme, resistance to changes and attachment to pre-established routines. Thus, it is believed that the establishment of a clear communicative process and the humanized reception of family members in the ICU can contribute to overcoming barriers between workers and family members and minimizing the stress generated in relationships with family members⁽²⁵⁾.

High levels of stress may indicate that the team approaches wear and tear, with possible damage to personal and professional life⁽¹⁴⁾. In view of what has been discussed, it is reaffirmed that nursing professionals working in intensive care may feel, more often, surrounded by sensations that contribute to the development of occupational stress and other related situations, such as mental fatigue, difficulty concentrating, depression, absenteeism, anxiety, mood changes and even Burnout syndrome. It is known that

these manifestations can affect quality of life and negatively affect the ability to provide appropriate care to patients⁽⁸⁻¹⁰⁾, including the possibility of errors, delay in recovery and increased mortality⁽⁸⁾. In the physical body, it can cause several changes in the cardiovascular system, digestive system and musculoskeletal⁽²⁴⁾.

The need for stress to be managed is highlighted in order to avoid reaching high levels, with greater losses for the professional, the service and the quality of care provided⁽²⁰⁾. It is important, then, to identify their causes and make efforts to mitigate them, so that the nursing team can perform their work more efficiently and the related consequences are reduced to a minimum^(7,22).

It is cited, as an example of a strategy for coping with occupational stress in the ICU, a study conducted in Iran, in which a group of nurses was trained to develop resilience. The authors identified, after the interventions, that there was a fall in work-related stress levels and an increase in resilience scores, leading to the conclusion that the application of resilience strategies contribute positively to coping with occupational stress in intensive care nurses⁽⁷⁾.

This research presents as a limitation the fact that it was carried out with a small number of professionals and in only one hospital organization. The collection of information in an enlarged sample and in more than one hospital could add greater reliability to the results obtained. It can be affirmed that the findings contribute to the expansion of the dialogue with the current literature, since they are reinforced by previous publications and make room for the continuity of the exploration of the theme through intervention research. It also contributes to point out the profile of nursing professionals most vulnerable to occupational stress that can culminate in illness, important data for the implementation of preventive strategies.

Conclusion

A prevalence of 57.4% of occupational stress at medium or high level was found among nursing professionals working in intensive care,

with a significant association related to shorter training time, having graduated and being a nurse. Among the activities inherent to ICU nursing care, according to Domain D of the BSS, a greater contribution to the development of stress in activities such as coping with patient death, the need to attend and provide guidance to the relatives of critically ill patients, the care of emergency situations and the provision of nursing care to critically ill patients were identified.

The results suggest the difficulties of nursing in dealing with delicate and still scarcely addressed topics in basic education, such as coping with death and relationships with patients' families. In addition, the entire context of intensive care is permeated by potentially stressful factors, which can be identified and minimized when possible. Considering that not all questions are subject to change, it is suggested that individual strategies for coping with occupational stress in ICU can be identified, stimulated and developed. More satisfactory results for stress reduction can be achieved through cooperation between management levels and workers, with the development of space for listening and shared construction of strategies for mutual support and strengthening relationships in the team.

It is suggested that intervention allocated research can be carried out in order to demonstrate the efficacy of techniques and methods that may contribute to the reduction of occupational stress in intensive care. A less stressful work environment can contribute to safe care and to achieve better results for the intragroup and family relationships.

Collaboration:

1 – conception, design, analysis and interpretation of data: Rosana Santos Mota, Valdenir Almeida da Silva and Isadora Goncalves Brito;

2 – writing of the article and relevant critical review of the intellectual content: Rosana Santos Mota, Valdenir Almeida da Silva, Ângela de Souza Barros and Andreia Santos Mendes;

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