

# The main factors causing Stress in nursing professionals who work in the Intensive Care Unit

## Os principais fatores causadores de Estresse em profissionais de enfermagem que atuam em Unidade de Terapia Intensiva

## Los principales factores que causan estrés en los profesionales de enfermería que trabajan en la Unidad de Cuidados Intensivos

Luciana Sabadin Batista<sup>1</sup>, Magali Hiromi Takashi<sup>2</sup>

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# REVISA

1. Doctor Alceu Melgaço Filho Hospital. Barra de São Francisco, Espírito Santo, Brazil.

2. Municipal Health Secretariat. Healthcare Unit III. Águia Branca, Espírito Santo, Brazil.

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### RESUMO

**Objetivo:** identificar os principais fatores causadores de Estresse nos profissionais de enfermagem que atuam em Unidade de Terapia Intensiva. **Método:** Trata-se de um artigo de revisão integrativa realizado através da análise de 6 artigos científicos extraídos da biblioteca virtual de saúde. **Resultados:** foram identificados os principais fatores causadores do estresse nesses profissionais, como: baixa remuneração, múltiplos vínculos, incluindo as tarefas domésticas como jornada de trabalho, tempo de atuação, cansaço físico, privação do sono e rotinas da UTI (contato constante com sofrimento, morte, ruídos dos equipamentos entre outro). **Conclusão:** as próprias funções da profissão e as responsabilidades designadas a esses profissionais requer esforço e dedicação, pois causam diversas alterações físicas, emocionais e psicológicas, que impactam na saúde, e consequentemente, na segurança e qualidade da assistência prestada aos pacientes.

**Descritores:** Enfermagem; Estresse Psicológico; Unidade de Terapia Intensiva.

### ABSTRACT

**Objective:** to identify the main factors that cause stress in nursing professionals working in the Intensive Care Unit. **Method:** This is an integrative review article carried out through the analysis of 6 scientific articles extracted from the virtual health library. **Results:** the main factors causing stress in these professionals were identified, such as: low remuneration, multiple bonds, including domestic chores such as working hours, working hours, physical tiredness, sleep deprivation and ICU routines (constant contact with suffering, death, equipment noise, among others). **Conclusion:** the profession's own functions and the responsibilities assigned to these professionals require effort and dedication, as they cause various physical, emotional and psychological changes, which impact on health, and consequently, on the safety and quality of care provided to patients.

**Descriptors:** Nursing; Stress, Psychological; Intensive care unit.

### RESUMEN

**Objetivo:** identificar los principales factores que causan estrés en los profesionales de enfermería que trabajan en la Unidad de Cuidados Intensivos. **Método:** Este es un artículo de revisión integrador realizado a través del análisis de 6 artículos científicos extraídos de la biblioteca virtual de salud. **Resultados:** se identificaron los principales factores que causan estrés en estos profesionales, tales como: baja remuneración, múltiples vínculos, incluidos los quehaceres domésticos, como las horas de trabajo, las horas de trabajo, el cansancio físico, la privación del sueño y las rutinas de la UCI (contacto constante con el sufrimiento, muerte, ruido de equipo, entre otros). **Conclusión:** las funciones propias de la profesión y las responsabilidades asignadas a estos profesionales requieren esfuerzo y dedicación, ya que causan varios cambios físicos, emocionales y psicológicos, que afectan la salud y, en consecuencia, la seguridad y la calidad de la atención brindada a los pacientes.

**Descriptores:** Enfermería; Estrés Psicológico; Unidad de terapia intensiva

## Introduction

The Intensive Care Unit (ICU) is considered a critical area for the admission of critically ill patients that requires specialized professional attention on an ongoing basis. It has specific materials and technologies necessary for the diagnosis, monitoring, support and maintenance of vital parameters.<sup>1</sup>

In hospitals with more than 100 beds, the installation of an ICU is mandatory. The number of beds must be between 6% and 10% referring to the total number of beds in the hospital. The grouping of more than one ICU in the same physical area, with more than one specialty, changes its name to the Intensive Care Center (ICC).<sup>2</sup>

The units are divided according to the patient's age group: from 0 to 28 days (Neonatal), from 29 days to 18 incomplete years (Pediatric) and over 14 years (Adult). Patients between 14 and 18 years old can be admitted to the pediatric or adult unit, at the discretion of the institution.<sup>3</sup>

The hospital environment is conducive to generating stress in patients, families and professionals. Several factors make the ICU a naturally stressful environment, as they are daily involved with diseases, pain, insecurity, invasive procedures, death, constant monitoring, intense work routine, constant risk of contagion (patients in isolation), exposure to radiation (X-rays), sharp piercing accidents and intermittent noises (monitors, suction pumps, respirators, moans, cries of pain, crying, telephone, team conversations).<sup>4</sup>

In this perspective, stress is defined as any event arising from the external or internal environment that exceeds the sources of adaptation or resistance of an individual or social system. Occurs when there is a threatening, harmful or tense change in the environment, which can trigger an imbalance in the individual, this triggering stimulus is called a stressor.<sup>5</sup>

Stressors can be distinguished as physical (chemical agents, cold and heat), physiological (fatigue, pain) or psychosocial (fear of losing, failing or making mistakes). It can also be divided into three phases: alert phase (considered the positive phase - the human being energizes through adrenaline production, where survival is preserved and a feeling of fullness is often achieved), resistance phase (the person automatically tries to deal with its stressors in order to maintain its internal homeostasis) and exhaustion phase (when serious diseases can occur in the most vulnerable organs, such as heart attack, ulcers, depression, among others).<sup>6</sup>

The aspects of stress are mentioned by some authors as the most harmful to the health of the worker's body and mind. The most frequent physical symptoms are: increased sweating, muscle tension, tachycardia, hypertension, jaw clenching, teeth grinding, hyperactivity, nausea, cold hands and feet. Among the psychological aspects, the following were mentioned: anxiety, tension, anguish, insomnia, alienation, interpersonal difficulties, doubts about

oneself, excessive concern, inability to concentrate on matters other than stressor, difficulty in relaxing, anger, hypersensitivity emotional.<sup>7</sup>

There are many factors that trigger stress, these can lead to excessive consumption of coffee, alcohol and tobacco. When it comes to nursing, there are numerous sources that generate stress, including environmental, socioeconomic, cultural, organizational conditions and nursing assistance itself.

The process of coping with stress involves adapting the individual to new stress-generating situations. There must be a balance of physiological and psychological functions that will result in the ability to meet new demands.

Based on the foregoing, the guiding question of this study is: What are the main stressors in nursing professionals working in ICUs?

The objective of the study was to identify the main factors causing Stress in nursing professionals who work in the Intensive Care Unit.

## **Method**

This is an integrative review, carried out through a bibliographic survey regarding the factors that generate Stress in the nursing team that works in the ICU.

For the construction of the integrative review, six different steps were taken: the identification of the theme and guiding question; establishment of criteria for inclusion and exclusion of studies / sampling; definition of information to be extracted from selected studies / categorization of studies; evaluation of included studies; interpretation of results; and presentation of the knowledge review / synthesis.<sup>8</sup>

To survey the scientific articles of the study, searches were carried out in the Virtual Health Library (VHL) Portal, in the Latin American Health Sciences (Lilacs) and Scientific Electronic Library OnLine (SciELO) databases. The descriptors used were: Nursing, Stress and Intensive Care Unit. The factors studied were stratified from the material studied, which are identified as the main stressors in nursing professionals working in the ICU.

46 articles were found and after the inclusion and exclusion criteria were applied, 6 articles were selected. The criteria taken into account for inclusion were: articles directly related to stress in nursing professionals working in the ICU, year of publication of the article with a time frame between 2015 to 2019.

## Results

**Chart 1** - Stratification of the main stressors in nursing professionals, in related articles.<sup>9-14</sup>

Study	Author	Title	Objective	Results	Conclusions
1	Teixeira LB et al	Occupational stress in Nursing working in the intensive care unit.	To describe, through the integrative review, stress in the nursing work in the ICU, as well as identify factors, signs and symptoms associated with occupational stress.	<ul style="list-style-type: none"> <li>• Multiple Links</li> <li>• Insufficient number of professionals;</li> <li>• Sleep deprivation;</li> <li>• Contact with the suffering, pain and death of patients;</li> <li>• Lack of Autonomy;</li> <li>• Lack of specialization in the area;</li> <li>• Interpersonal relationship;</li> <li>• Excess of work;</li> <li>• Noise;</li> </ul>	Evidenced stress in nursing professionals who work in ICUs.
3	Moura RS et al	Nursing Stress Levels in Intensive Care Units.	To describe the stress levels among mid-level nursing professionals in adult intensive care units in some private hospital services.	<ul style="list-style-type: none"> <li>• Salary Deficit;</li> <li>• Multiple Work Links;</li> <li>• Insufficient number of professionals;</li> <li>• Contact with the suffering, pain and death of patients;</li> </ul>	High levels of stress were found among nursing professionals.
4	Andolhe R et al	Stress, Coping Burnout of the Nursing team of Intensive Care Units: Associated Factors.	To verify the stress levels, coping and burnout strategies of nursing professionals working in the ICU and their association with biosocial and work factors.	<ul style="list-style-type: none"> <li>• Insufficient number of professionals;</li> <li>• Inappropriate working conditions;</li> <li>• Sleep deprivation;</li> </ul>	The results allowed to conclude that the level of stress found among the studied subjects was moderate.
5	Rodrigues CCFM et al	The body speaks: physical and psychological aspects of stress in nursing professionals.	To identify the effects of stress on nursing professionals who work in Intensive Care Units.	<ul style="list-style-type: none"> <li>• Salary Deficit;</li> <li>• Multiple work links;</li> <li>• Physical tiredness;</li> </ul>	Stress was identified as a cause of damage to the physical and mental health of nursing professionals.

6	Trettene AS et al	Stress - a reality experienced by nurses working in an Intensive Care Center.	To investigate the level of stress in nurses working in an Intensive Care Center.	<ul style="list-style-type: none"> <li>• Wage Deficit;</li> <li>• Multiple Links;</li> <li>• Inappropriate working conditions;</li> <li>• Manage other people's work;</li> <li>• Restriction of professional autonomy;</li> <li>• Institutional political interference at work;</li> </ul>	Nurses working in the ICU had an intermediate level of stress in the face of the study.
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The articles that assessed the level of stress applied the Stress at Work Scale (TSE) for the assessment. It consists of 13 items, with response variation on a Likert scale with the values 1 (strongly disagree), 2 (disagree), 3 (partially agree), 4 (agree) and 5 (strongly agree). The global range of the scale ranges from 13 to 65 points, with higher values meaning greater perception of stress. It was possible to identify that the prevalence of Moderate stress was identified in approximately 70% of nursing professionals.

The professionals with the longest working hours in the ICU (2 to 13 years), are the ones who most presented symptoms of stress. While the youngest professionals in the service (less than 2 years old) showed fewer stress symptoms.

In 50% of the articles, the wage deficit in the category and the low wages offered by the institutions stand out. These lead to the need for nursing professionals to enter other jobs in order to meet their financial needs. Multiple employment relationships are frequent, professionals need to fulfill double or triple working hours. Statistically, nursing professionals are predominantly female, these professionals still assume the responsibility of housework, which characterizes yet another workday, reducing free time and the possibility of leisure and rest.

The absence of salary readjustments is also a reality that must be considered. The wage is determined by the market and depends on the relation of supply and demand. The growing increase of nursing professionals in the labor market results in a decrease in remuneration. Low pay forces workers to choose multiple employment relationships, often on continuous shifts and in different institutions.

Physical tiredness refers to the performance that each professional performs in intensive care. The technical team performs procedures that involve greater physical effort, such as lifting and transporting patients, bed bathing, among others. While nurses have psychological symptoms, as they perform tasks that stand out due to the accumulation of administrative, bureaucratic work, pressure

and demands from the leadership, which consequently lead to the distance from direct assistance work.

Sleep deprivation is mentioned in 33% of the articles, it causes several disorders, the main ones being: gastrointestinal, cardiovascular, cognitive, mood fluctuations, impaired performance of activities, personal, social and work, as it reduces the ability to concentrate and attention.

The other factors mentioned are related to those that naturally make the ICU a stressful environment, they are: constant contact with the suffering, pain and death of patients, noise from monitoring equipment and life support.

## **Final Consideration**

The ICU is characterized as a stressful environment and with the potential to negatively interfere in the development of the work of nursing professionals.

In this study, the main factors causing the stress of these professionals were identified, such as: low remuneration, multiple bonds, including domestic chores such as working hours, working hours, physical tiredness, sleep deprivation and ICU routines (constant contact with suffering, death, equipment noise, among others).

Although much research on stress in nurses has been developed recently, there are few proposals for interventions that seek to minimize or facilitate the coping with stressful sources in practice.

The central idea of the objectives for interventions to combat stress is that nursing professionals are able to achieve job satisfaction, making work activity enjoyable. With this, the productivity, motivation and commitment of the workers increase, and consequently the professional performance increases.

Stress is, undoubtedly, one of the evils that has affected nursing professionals in their work environment, especially in the ICU. The profession's own functions and the responsibilities assigned to these professionals require a lot of effort and dedication, which in turn generate disturbances, physical, emotional and psychological changes.

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### Correspondent Author

Luciana Sabadin Batista  
135 Luiz Mendes St. Vila Nova. ZIP 35.290-000.  
Mantena, Minas Gerais, Brazil.  
[lucianasabadin@hotmail.com](mailto:lucianasabadin@hotmail.com)