

Stress and burnout in emergency nurses at a reference hospital in emergency and trauma

Estresse e burnout em enfermeiros da emergência de um hospital referência em urgência e trauma

Estrés y burnout en enfermeros de urgencias en hospital de referencia en urgencia y trauma

ABSTRACT

Objective: to investigate the correlation between stress and Burnout in nurses working in a trauma emergency room in Belo Horizonte. **Method:** a cross-sectional, descriptive, quantitative study with 46 emergency nurses, based on the Job Stress Scale, the Maslach Burnout Inventory and a socio-demographic record. **Results:** a total of 65.22% of nurses had high psychological demand. In the Demand-control Model, 34.78% of the nurses were in work activity and 30.43% were under high stress, causing harmful effects on health. As for Burnout, 23.91% had high emotional distress, 21.74% had high depersonalization, 28.26% had low professional fulfillment, and three nurses were in Burnout. **Conclusion:** there is a correlation between stress and Burnout. Nurses are exposed to a highly stressful work environment, conducive to the development of Burnout. It is necessary to implement strategies aimed at coping with stress, preventing Burnout, in addition to treating those who are already ill. **Descriptors:** Occupational Stress; Burnout; Nursing.

RESUMO

Objetivo: investigar o estresse e *Burnout* nos enfermeiros da emergência de um prontosocorro referência em trauma em Belo Horizonte. **Método:** estudo transversal, descritivo, quantitativo, com 46 enfermeiros da emergência, realizado a partir da *Job Stress Scale*, do *Maslach Burnout Inventory* e de uma ficha de dados sociodemográficos. **Resultados:** 65,22% dos enfermeiros possuíam alta demanda psicológica. No Modelo Demanda-Controle, 34,78% dos enfermeiros estavam trabalhando ativamente e 30,43% em alto desgaste, ocasionando efeitos nocivos à saúde. Quanto ao *Burnout*, 23,91% apresentaram alto desgaste emocional, 21,74% alta despersonalização e 28,26% baixa realização profissional, sendo que três enfermeiras já estavam em *Burnout*. **Conclusão:** existe correlação entre estresse e *Burnout*. Os enfermeiros estão expostos a um ambiente laboral altamente estressante, propício ao desenvolvimento de *Burnout*. É preciso implementar estratégias objetivando o enfrentamento do estresse e a prevenção de *Burnout*, além de tratar os já adoecidos.

Descritores: Estresse Ocupacional; Esgotamento Profissional; Enfermagem.

RESUMEN

Objetivo: investigar la correlación entre estrés y Burnout en enfermeros que trabajan en una sala de emergencias de trauma en Belo Horizonte. **Método:** estudio transversal, descriptivo, cuantitativo con 46 enfermeros de urgencias, basado en la Job Stress Scale, el Maslach Burnout Inventory y registro sociodemográfico. **Resultados:** 65,22% de los enfermeros presentaba alta demanda psicológica. En modelo de control de demanda, 34,78% de los enfermeros estaban trabajando y 30,43% estaban sometidos a mucho estrés, lo que provocaba efectos nocivos para salud. En cuanto al Burnout, 23,91% tenía alta angustia emocional, 21,74% alta despersonalización y 28,26% baja realización profesional, y tres enfermeras estaban en Burnout. **Conclusión**: existe correlación entre estrés y Burnout. Los enfermeros están expuestos a entorno laboral estresante, propicio para desarrollo del Burnout. Es necesario implementar estrategias dirigidas a afrontar el estrés, prevenir el Burnout, además de tratar a los que ya están enfermos. **Descriptores:** Estrés Laboral; Agotamiento Professional; Enfermería. Maria Clara Leandro Ferreira ¹ 0000-0002-1059-4485

> Silmar Maria Silva² 0000-0002-8322-3917

> Sandra Souza³ 0000-0002-9455-6741

¹Universidade Federal de Juiz de Fora Juiz de Fora – MG, Brasil ²Universidade Federal de Minas Gerais Belo Horizonte – MG, Brasil ³Hospital de Pronto Socorro João XXIII Belo Horizonte – MG, Brasil

Corresponding author: Maria Clara Leandro Ferreira E-mail: mclaraferreira.enf@gmail.com

How to cite this article:

Ferreira MCL, Silva SM, Souza S. Stress and burnout in emergency nurses at a reference hospital in emergency and trauma. Revista de Enfermagem do Centro-Oeste Mineiro. 2022;12:e4413. [Access____]; Available in:____. DOI: http://doi.org/10.19175/recom.v12i0.441 3

INTRODUCTION

In recent years, the demand for emergency and intensive care beds has increased considerably in Brazil. This increased demand can be related to several factors, especially the aging population, the increase of chronic diseases with potential aggravation and the various types of trauma, resulting mainly from interpersonal violence and traffic accidents⁽¹⁾.

Inserted in this context are the nurses in the emergency room, who work on the front line between the population and the hospital environment. Patient complexity, overcrowding, work overload, shortage of material and human resources, communication problems between care teams, violence, and risks of contamination by accidents involving biological materials all contribute to this scenario⁽²⁾.

Psychologically, occupational stress can be viewed as an adaptation to a challenge or threat to the individual's well-being, resulting in a state of imbalance that may adversely affect the health of the worker if not dealt with⁽³⁾. High levels of psychological demand associated with low levels of control over the work process make workers more vulnerable to highly stressful situations, with three times the risk of developing minor psychological disorders. Additionally, they may experience fatigue, forgetfulness, anxiety, difficulty concentrating, headaches, lack of appetite, and gastrointestinal symptoms⁽⁴⁾.

In this sense, the configuration of the work in the emergency sector contributes to the nurses' illness process, especially psychological illness, as the work process and conditions impose a high psychological demand, generating high levels of stress and emotional exhaustion, which are predictors of the Burnout Syndrome (BS)⁽²⁻⁴⁾.

BS, or Burnout, is the process of physical and mental exhaustion resulting from prolonged and intense exposure to highly stressful situations experienced in daily working life. Burnout is characterized by: emotional exhaustion - a feeling of intense physical and mental exhaustion, in which the subject can't release the necessary energy that his/her work demands -; depersonalization - an emotional defense mechanism that uses distance, insensitivity and coldness in interpersonal relationships as a way to protect oneself from the suffering that comes from direct contact with others -; and low professional fulfillment - a feeling of dissatisfaction with the work, resulting in low self-esteem and incompetence⁽⁵⁾.

Moreover, the implications of Burnout are not limited to the worker, but also reverberate in the patient and in the healthcare institution, such as a decrease in the quality of care provided and an increase in adverse events in assistance, absenteeism and turnover of professionals⁽⁶⁾. As a result, in recent years, the mental health of the worker has gained prominence in the interest of researchers, as well as being recognized as a priority for inclusion in public health programs⁽⁷⁾.

Thus, the question is: what is the prevalence of stress among nurses who work in the emergency

department of the largest emergency hospital in Minas Gerais? What is the prevalence of Burnout among these nurses? Is there a correlation between stress and Burnout? To answer these questions, this study aimed to investigate the correlation between stress and Burnout among nurses who work in the emergency room of a reference hospital in urgency and trauma in Belo Horizonte.

METHOD

This is a cross-sectional, descriptive, quantitative research conducted in the emergency department of a large emergency room, located in Belo Horizonte - Minas Gerais. The hospital is a state reference in the care of patients in urgent and emergency situations, victims of multiple traumas, major burns, intoxications and clinical and/or surgical situations of imminent risk of death. At the time of the study, the emergency department had approximately 340 nursing staff, 53 of which were nurses, and was composed of: emergency room with 18 beds, resuscitation room with two beds, clinical emergencies room, two risk classification rooms and seven specialty rooms (medical clinic, neurology, pediatrics, general surgery, toxicology and orthopedics).

For the selection of participants, the following criteria were adopted: nurses working in the emergency department. The study did not include nurses with less than one year of work and those on vacation, on sick leave or on maternity leave during the data collection period.

The data was collected using two validated instruments and a socio-demographic and professional data sheet. To assess stress, the Job Stress Scale (JSS), adapted to Portuguese, was used⁽⁸⁾. The JSS consists of 17 questions: five to assess demand (pressures of a psychological nature), six to assess control (the worker's ability to use their resources and intellectual abilities to do their job and to have the authority to make decisions that impact the performance of their job), and six for social support (work environment, consisting of levels of social interaction, both with co-workers and bosses)⁽⁸⁾. Each question contains a Likert-type scale ranging from 1 to 4 points and from "never" to "often". The final score ranges from 5-20 for psychological demand and from 6-24 for control and social support, leading to the possibilities of high or low demand, high or low control, and high or low social support. In the Demand-Control Model (DCM), the scores are allocated into four quadrants in order to express the relationships between psychological demands and control: a) high psychological demands and low control: high wear and tear on the worker, with harmful effects on his health; b) low psychological demands and low control: passive work, causing disinterest in the worker and the consequent loss of skills; c) high psychological demands and high control: active work, because, although the demands are high, they are less harmful, since the worker has the ability to plan his working hours according to his own biological rhythm and create

strategies to cope with difficulties; and d) low psychological demands and high control: low work wear, corresponding to the ideal situation⁽⁹⁾.

In this study, Burnout was assessed using the Maslach Burnout Inventory (MBI), translated and validated in Portuguese⁽¹⁰⁾. The MBI has 22 questions: nine to assess emotional distress, five to assess depersonalization, and eight to assess professional fulfillment, and each question has a Likert scale with scores from zero to four. Cutoff points were used through quartiles (25%, 50%, 75%) based on the recommendation of the validation study of the instrument for the Brazilian version⁽⁹⁾. After delimiting the score intervals by the cutoff points adopted, the subjects who presented high scores in emotional distress and depersonalization (above the 75% percentile) and low competence (professional achievement below the 25% percentile) were classified as being in Burnout⁽¹⁰⁾.

In addition, a socio-demographic and professional form was applied regarding gender, age, marital status, way of joining the institution, work shift, commuting time to and from work, employment bonds, total hours worked in the week and in the sector, time in the institution, in the profession, and in urgency and emergency services, and presence, or not, of specialty in urgency and emergency or another area. Data collection occurred between August and September 2019.

Given the availability of the professional to participate in the research - after reading the Free and Informed Consent Term (FICT), as advocated by Resolution No. 466/2012, and the clarification about the research regarding the right to accept or not to participate in the study, to decline from the research at any time and about the dissemination of research data while maintaining anonymity - the professionals were given the instruments in an envelope so that they could answer, in a reserved room, to ensure the privacy of the participant. Each envelope contained an alphanumeric code to preserve anonymity. Only the researchers knew its meaning.

The data was entered into a Microsoft Excel® spreadsheet and double entered. After checking data consistency, the analysis was performed in the Statistical Software for Professional (Stata®), version 14.0. The population description and estimates were presented as proportions (%). For quantitative variables, after checking for asymmetry using the Shapiro-Wilk test, data were presented as mean and standard deviation when parametric, and median and interquartile range (IQ) if non-parametric.

In the JSS scale, after verifying the asymmetry of the domains that compose it, the description of the score obtained in the scale was performed by means of median and IQ interval. To calculate stress, the DCM quadrant formulation was used. The scores of each dimension were obtained by adding up the scores of the answers and, later, dividing them into two categories from the median⁽⁷⁻⁸⁾. For the presentation of the data,

the scores were averaged according to the dimensions of the scale.

For the MBI, after verifying the asymmetry of the domains that make up the scale, the description of the score obtained in the scale was performed by means of mean and standard deviation. To create the delimitation of the score intervals by the cutoff points adopted, the percentile recommendations were used (25%, 50% and 75%) and it was considered that the participant was in Burnout when he/she presented scores in emotional distress high and depersonalization and low professional achievement according to the percentiles⁽¹⁰⁾.

The correlation between the domains that make up the MBI and the domains that make up the JSS was analyzed by Spearman's correlation test and considered strong correlation when (r>70); moderate correlation (r between 0.30-0.70); and weak correlation (r<0.30). A 5% significance level was adopted in all analytical procedures.

This study followed all ethical aspects provided for in Resolution No. 466/12 of the National Health Council. The project was submitted via *Plataforma Brasil* (CAAE: 16605019.1.0000.5119) and approved by the Ethics Committee on Human Research of the Hospital Foundation of the State of Minas Gerais (*FHEMIG*), under Opinion No. 3.437.999.

RESULTS

Of the 53 nurses in the emergency department, five did not meet the eligibility criteria (one nurse had worked in the department for less than a year, one was on vacation, two were on medical leave, and one was on maternity leave). Of the 48 eligible nurses, two refused to participate in the study, and so the sample consisted of 46 nurses, with a response rate of 95.83%. Most were female (71.74%), with a median age of 37 years, 56.52% lived with a partner, and 47.83% earned between four and six minimum wages, in the amount of 998 Brazilian reais.

Regarding the professional profile, the median time in the institution was 7.5 years and 11 years in nursing. Most of them had been hired by the institution (76.09%), with a median of 8.5 years of work in urgency and emergency, 54.35% worked the day shift, and 54.35% had only one job, with a median of 42.5 hours worked a week, and 63.04% worked from 20 to 30 hours in the institution.

Regarding professional training, 60.87% had a specialization in urgency and emergency and 56.52% had a specialization in another area. Regarding urban mobility, the median time spent to get to the hospital was 45 minutes, and the median time spent back home was 50 minutes.

Regarding stress, it was observed that the majority (65.22%) had high psychological demand, 52.17% had high control, and 65.22% had high social support. To calculate psychosocial stress at work, the DCM quadrant formulation was used. After the categorization, 34.78% were in active work (high psychological demands and high

control), 30.43% had high attrition (high psychological demands and low control), and 17.38% were in passive work (low psychological

demands and low control) and low attrition (low psychological demands and high control) (Table 1).

Table 1 - Characterization of nurses according to psychological demand, control and social support at work, dichotomized at the median of the distribution. Belo Horizonte, MG, Brazil, 2019

Domains	n(%)
Psychological demand	
Low	16(34.78)
High	30(65.22)
Control	
Low	22(47.83)
High	24(52.17)
Social support	
Low	16(34.78)
High	30(65.22)
Demand-Control Model (DCM)*	
Low wear and tear ($igsty { extsf{D}}igsty { extsf{C}}$)	8(17.39)
Active work (个D个C)	16(34.78)
Passive work ($\downarrow D \downarrow C$)	8(17.38)
High wear and tear (${f \uparrow}{\sf D}{ig \downarrow}{\sf C}$)	14(30.43)

*(\downarrow D \uparrow C): low demand, high control; (\uparrow D \uparrow C): high demand, low control; (\downarrow D \downarrow C): low demand and low control; and (\uparrow D \downarrow C): high demand and low control.

Source: Study data.

As for Burnout, 23.91% presented high emotional distress, 21.74% high scores in the

depersonalization domain, and 28.26% low professional achievement (Table 2).

Table 2 - Distribution of the nurses' cutoff points according to the Quartiles of the Maslach Burnout Inventory (MBI). Belo Horizonte, MG, Brazil, 2019

Domains					
Emotional distress	Cutoff point (Quartiles)	n(%)			
High	24 to 33	11(23.91)			
Moderate	12 to 23	21(45.65)	21(45.65)		
Low	≤11	14(30.43)	14(30.43)		
Depersonalization					
High	9 to 15	10(21.74)	10(21.74)		
Moderate	3 to 8	23(50.00)	23(50.00)		
Low	≤2	13(28.26)			
Professional fulfillment					
Low	≤ 20	13(28.26)			
Moderate	21 to 27	24(52.17)	24(52.17)		
High	28 to 32	9(19.57)	9(19.57)		

Source: Study data.

Of the sample, three (6.52%) participants presented high scores for emotional distress and depersonalization and low scores for professional achievement, and were classified as Burnout (data not shown in the tables). These were women, with a median age of 32 years (IQ: 25 - 32), two of whom (66.67%) lived with a partner, and two (66.67%) earned between five and six minimum wages. They had a median of 7 (IQ: 6 - 10) and 10 years in the profession (IQ: 9 - 12), 100% were permanent

employees and had a median of 10 years (IQ: 7 - 10) of work in urgency and emergency.

Regarding the correlation of the JSS and MBI scale domains, there was a moderate positive correlation between the psychological demand domain and the emotional distress domain and a moderate negative correlation with the control domain, both correlations were significant (p=0.008 and 0.015, respectively) (Table 3).

Table 3 - Correlation between the domains of the Maslach Burnout Inventory (MBI) and the Job StressScale (JSS) - Belo Horizonte, MG, Brazil, 2019

	MBI			JSS				
MBI	Emotional distress	Depersonalization	Professional fulfillment	Psychological demand	Control	Social support		
Emotional distress	1							
Depersonalization	0.601 (<0.001)	1						
Professional fulfillment	-0.468 (0.001)	-0.590 (<0.001)	1					
JSS								
Psychological demand	0.386 (0.008)	0.204 (0.171)	0.003 (0.980)	1				
Control	-0.355 (0.015)	-0.076 (0.613)	0.280 (0.059)	0.226 (0.130)	1			
Social support	-0.614 (<0.001) -0.386 (0.008)		0.458 (0.001) -0.077 (0.607)		0.468 (0.001)	1		

*: p-value in bold < 0.05

The social support domain had a significant negative and moderate correlation with the emotional distress and depersonalization domains of the MBI (p<0.001 and 0.008, respectively). As for the professional achievement and control domains, the correlation was positive and moderate (p<0.001 and 0.001, respectively).

Source: Study data.

Source: Study data.

When evaluating the JSS scores, according to the categorized domains of the MBI, a significant association was observed between psychological demand and emotional distress and social support with all domains of the MBI (Table 4).

Table 4 - Analysis of the domains of the Maslach Burnout Inventory (MBI) scale according to the domains of the Job Stress Scale (JSS). Belo Horizonte, MG, Brazil, 2019

	MBI											
	Emotional distress				Depersonalization				Professional fulfillment			
JSS	High	Mode- rate	Low	p- value	High	Mode- rate	Low	p- value	Low	Mode- rate	High	p- value
Psychological demand	18 ⁴ (17- 19)	18 ^A (17- 18)	15.5 ^в (14- 16)	< 0.001	17.5 (17- 18)	17 (16- 18)	16 (15- 18)	0.262	17 (17-18)	17 (16- 18)	16 (15- 17)	0.306
Control	20 (17- 22)	21 (19- 21)	21 (19- 22)	0.295	20.5 (19- 22)	20 (19- 21)	21 (21- 22)	0.389	20 (19-22)	21 (19- 21.5)	21 (19- 22)	0.723
Social support	17 ^A (13- 18)	18 ^в (17- 20)	20 ^c (19- 21)	< 0.001	17.5 ^A (14- 19)	18 ^{AB} (17- 19)	20 ^в (18- 22)	0.026	17 ^A (16-19)	18 ^{AB} (17- 19.5)	20 ^в (20- 22)	0.012

Note: Equal letters mean similarity between the medians of the groups.

Nurses who had high and moderate emotional distress had higher median scores in the psychological demand domain of the JSS scale when compared to those who had low emotional distress (p<0.001). Regarding the social support domain, nurses who had lower median scores in this domain had high emotional distress, high depersonalization, and low professional achievement, statistically significant.

DISCUSSION

Of the 46 participants, 65.22% had high psychological demands. This finding is close to that of other studies⁽¹¹⁻¹²⁾ which also pointed to high levels of psychological stress and, consequently, high levels of stress. A study in the United States, for example, found that 93% of emergency nurses

suffered from high psychological stress⁽¹¹⁾, In Iran, this number reached $76.1\%^{12}$.

The high psychological demand in the emergency department is associated with the characteristics inherent to the work environment in which this professional is inserted, such as the presence of critically ill patients with imminent risk of death and who require quick, accurate and resolute interventions, in addition to work overload, intense and unpredictable dynamics, lack of material and human resources, inadequate infrastructure, episodes of harassment and violence from patients and family members, shift work and few hours of rest. This configuration of the work routine of nurses who work in the emergency room imposes a high psychological demand, causing damage to various aspects of the worker's health, with repercussions on the care provided and the institution⁽¹³⁾.

It can be noted, then, that the daily routine of nurses presents high demands, since these professionals deal with conflicts, complex situations, time pressure, scarcity of human resources and inputs, concomitantly with the progressive increase in demand for health care, aiming to ensure the maintenance of quality care. Thus, it is a profession whose level of demand for physical and emotional structures to face the adverse situations encountered at work is extremely high⁽⁴⁾.

As for the control domain, 52.17% of the participants presented high control. High control is a contributing factor to the mental health of nurses, since it allows them to explore their intellectual abilities - strategically and creatively in order to be objective in decision making, be productive in the development of tasks, and maintain resilience, decreasing the risks of Burnout, reducing job dissatisfaction and the intention to leave the profession⁽⁹⁾. However, the low control at work, present in 47.83% of the participants, may contribute negatively to the wear and tear on nurses, since this condition progressively produces atrophy of learning skills, adaptation and coping with adverse situations that may occur in daily work⁽⁹⁾.

About 65.22% of the nurses had high social support. Social support, with emphasis on good work relationships, with effective communication and a cohesive group, is a protective factor against emotional distress, since, associated with high control, it reduces the levels of exhaustion, damage to the workers' health, and increases job satisfaction⁽¹⁴⁾. A study conducted in a philanthropic hospital in Paraná showed that support from supervisors and colleagues is essential to prevent BS among employees, since they can share experiences with each other, promoting a welcoming, non-judgmental and mutually supportive environment⁽⁶⁾. On the other hand, workers who get less social support are more emotionally exhausted, have higher levels of depersonalization and low job satisfaction⁽³⁾.

In the DCM, 30.43% of the nurses were inserted in the high demand and low control quadrant, a figure below that found in a French study with 385 nurses from three different sectors in a University Hospital - Intensive Care Unit (ICU), Emergency and Anesthesiology department⁽¹⁵⁾. This study showed that 48% of the nurses are also in high attrition and also evidenced that this condition is prevalent among professionals who have more qualifications, since they are more demanded, therefore they have less control, which has a negative impact on decision making and on the quality of care⁽¹⁵⁾.

Continuous exposure to highly stressful situations and work environment can lead to emotional exhaustion of nurses, with development of physical and psychological symptoms, delay in decision making, besides conduct errors, putting at risk the integrity of patients who are under the care of this professional. Moreover, this condition can favor the deterioration of the physical and organic health of employees, causing insomnia, fatigue, irritability, forgetfulness, concentration difficulties, somatic complaints, metabolic disorders, coronary artery disease, and reduced psychological wellbeing and job satisfaction^(4,11).

In this study, it was verified that 34.78% of the nurses were in active work, that is, in high demand associated with high work control. In another study that involved the nursing teams assistant, technician, and nurse - of two public hospitals in Manaus - AM, it was found that 22% of the workers were in active work and, when analyzed only the nurses, 46.8% were submitted to active work⁽¹⁶⁾.

Regarding Burnout domains, 23.91% of the nurses in this study presented high emotional 21.74% high scores distress, in the depersonalization domain and 28.26% low professional accomplishment. These data differ from the values found in a study carried out in the emergency room of a large public hospital in Rio de Janeiro, in which 51.30% of the professionals presented high burnout, 64.90% high depersonalization and 16.30% low professional accomplishment⁽¹⁷⁾.

From the results of this research, it was found that 6.53% of the nurses who work in the emergency room are in Burnout. This data corroborates the results found in an investigation conducted in the multidisciplinary team that works in the Surgical Block of a teaching hospital in Rio Grande do Sul (RS), whose characteristics of the workplace are compatible with the aspects related to the work environment of this study and that indicated a percentage of 10.3% of professionals with SB⁽¹⁸⁾. However, this information differs from the Portuguese reality, in which Burnout was identified in 54% of the nurses of a university hospital, located in the city of Porto⁽¹⁹⁾.

In fact, in recent years, a considerable increase in the incidence of Burnout has been observed⁽⁷⁾. Since globalization, the constant economic, political, and technological changes constantly influence the health work process, making it increasingly complex and demanding. In this sense, the workplace becomes an environment permeated by high occupational and psychosocial risks⁽¹³⁾, especially in the emergency room, a sector where, in relation to the other specialties in the intra-hospital environment, the highest rates of Burnout are present⁽⁷⁾. It is believed that the difference in stress and burnout levels found in several studies is due to the peculiarities of each reality associated with the individual way of coping adverse situations that professionals with encounter in the workplace.

In this study, a significant association was observed between psychological demand and emotional distress and social support with all domains of the MBI. A study conducted in Belgium, with 15 emergency departments from different hospitals, compared the domains of the JSS and MBI scales, with an 18-month interval between the

data collected, during which time the hospitals underwent changes in work flows and processes. After this period, it was verified a better perception of psychological demand, control and social support associated with a reduction in emotional distress over time⁽¹⁴⁾. This also happened in RS, in which it was possible to notice a positive association between psychological demand to emotional distress and depersonalization as a result of the work environment in which the multiprofessional team is inserted⁽¹⁸⁾. Moreover, it was evident that the higher the levels of Burnout, the greater the psychological demands, since the characteristics arising from the job make the employee weak, making him predisposed to the syndrome⁽¹⁸⁾.

Furthermore, a negative relationship was found between social support also and depersonalization, demonstrating that the greater the support the professional finds in work relationships, the less depersonalization he/she experiences. However, according to the research done in RS⁽¹⁸⁾, the inverse process also occurs, that is, the professional who is in psychological demand and has low social support presents higher levels of depersonalization. This employee, consequently, is an emotionally exhausted individual, lacks social energy, is demotivated about work, and avoids interpersonal relationships, especially with patients and coworkers^{(18).}

Moreover, it was possible to verify in this study a positive and moderate correlation between the domains of control and job satisfaction, showing that professionals who have more control are more satisfied in their profession. The same correlation was found in another study, which evaluated stress and burnout in bank employees who work in public and private agencies in different cities in Brazil⁽³⁾. In this sense, nurses who have a good relationship with the teams, more control at work and more autonomy in their professional practice report less desire to leave the profession.

Thus, it is evident that low professional accomplishment, characterized by feelings of low self-esteem, demotivation and dissatisfaction with the activities, encourages abandonment of the profession, and professional dissatisfaction is an important predictor in cases of suspected Burnout. On the other hand, professional accomplishment is a protective factor that can stimulate professional engagement with work, reduce absenteeism and turnover, and thus generate positive results in the safety of care, reducing costs and promoting a good image for the institution⁽³⁻¹⁴⁾.

Besides the dimension of the worker - with repercussions in his/her physical and emotional health, as previously mentioned - the consequences of Burnout also permeate the patient and the institution. From the patient's perspective, Burnout has repercussions in the care provided by nurses. The high emotional stress associated with low work performance affects the nurses' understanding of their patients' needs, which can lead to erroneous practices, ethical conflicts and reduced quality of care and professionalism⁽²⁰⁾.

However, nurses with low levels of Burnout ensure safe care, with individualized care, focused on the patient and his/her needs⁽²¹⁾ and contribute to increased quality and positive perception of care, with the adoption of attitudes aimed at patient safety⁽²²⁾.

From the point of view of organizations, absenteeism is one of the main consequences of Burnout, as evidenced in a study conducted with public servers in Santa Catarina to identify causes that lead to absenteeism among nursing professionals. The investigation revealed that mental and behavioral disorders are the second leading cause of absence from work, causing loss of productivity, high employee turnover, in addition to costing the institution⁽²³⁾.

Furthermore, factors related to the economic recession are also causing stress and burnout in the workplace. In a comparative study, before and after an economic crisis that occurred in Europe between 2007 and 2013, it was shown that job satisfaction related to salary and stability was higher in 2018, after the effects of the economic recession had subsided and with a reduction in the values of the Burnout domains⁽²⁴⁾.

Given the above, the importance and urgency of implementing strategies aimed at reducing the levels of stress and Burnout in the work environment becomes evident. These strategies should encompass the organizational dimension, through measures applied in the work environment and actions encouraged by the institution; the individual dimension, from individual and healthy adaptation responses to stressful situations experienced in the work routine; and the combined dimensions - measures that mix the occupational and individual contexts⁽²⁵⁾.

Thus, the work environment can interfere in the functioning of these services, since it influences professional practice. The work environment that is composed of structures, processes and values that provide adequate working conditions and an autonomous performance by nurses can contribute to higher levels of job satisfaction, lower degrees of stress and burnout, besides reducing mortality rates, increasing the quality and safety of care, providing satisfaction to patients and, for the institution, reducing absenteeism and employee turnover⁽¹⁾.

Therefore, measures, such as discussing the workload and the number of hours worked, wage conditions, psychological monitoring of workers dealing with pain, suffering and death, creating conditions to promote emotional support among co-workers, hours of rest and leisure, the practice of physical activity, as well as the inclusion in periodic examinations of the analysis of mental health conditions related to occupational stress can be strategies that aim to minimize stress and Burnout⁽²⁵⁾. In addition, it is necessary that the institutions have a welcoming and attentive look at the professionals who are suffering and are already

ill, providing the most appropriate treatment to these employees⁽²⁵⁾.

Regarding the limitations of the study, we highlight its cross-sectional design, which does not allow establishing causal inferences, and the size of the sample, despite the presentation of a 95.83% response rate.

CONCLUSION

The study showed that most nurses had high psychological demand, high control, and social support. When performing the possible combinations within the Demand-Control Model, it was observed that the rate of professionals in high attrition was close to the workers who are in active work. A small portion of the population studied is in passive work, which is also harmful to the worker, since it atrophies their abilities to control, creativity, management of adverse situations, and the ability to make assertive decisions.

It was also possible to verify the varied correlations between stress - represented by the domains present in the JSS scale - and Burnout characterized by the domains of the MBI scale. There was a moderate positive correlation between psychological demand and emotional distress and a moderate negative correlation with control, demonstrating that the equation between high psychological demand and low control results in high emotional distress. Social support had significant negative and moderate correlation with emotional distress and depersonalization on the MBI. In addition, nurses who had lower medians in the social support scores had statistically emotional significant high distress. high depersonalization, and low professional accomplishment, corroborating that professionals who create a network of mutual support in the work environment tend to be more empathetic, reduce the stress load in daily life, and thus have less emotional distress and consequent increase in professional accomplishment.

Therefore, it is necessary to implement individual and institutional strategies, in isolated and combined ways, with the objective of minimizing the impact of the stressful effects in the work environment and potentiate strategies for coping with stress and preventing Burnout, besides providing adequate treatment to the professionals affected by the syndrome.

Based on the literature and from the conclusions of the study, the authors understand that the issue in question is of great relevance to Nursing and that measures such as those cited above should be taken to protect the health of nurses, and consequently, to value the profession, provide high quality care to patients' health and raise the level of service and reliability of institutions.

REFERENCES

1. Maurício LFS, Okuno MFP, Campanharo CRV, Lopes MCBT, Belasco AGS, Batista REA. Professional nursing practice in critical units: assessment of work environment characteristics. Rev Latino-Am Enfermagem. 2017;25:e2854. Disponível em: <u>10.1590/1518-8345.1424.2854</u>.

2. Dantas TRS, Carreiro BO, Pascoal FFS, et al. Prevalência da síndrome de burnout entre enfermeiros da rede hospitalar de urgência e emergência. J. res: fundam care online. 2014;6:196-205. Disponível em: <u>10.9789/2175-</u> <u>5361.2014.v6i5.196-205</u>.

3. Coelho JAPM, Souza GHS, Cerqueira CLC, Esteves GGL, Barros BNR. Stress as a predictor of burnout in the banking sector. Rev Psicol Organ Trab. 2018;18(1):306-15. Disponível em: 10.17652/rpot/2018.1.13162.

4. Pinhatti EDG, Ribeiro RP, Soares MH, Martins JT, Lacerda MR, Galdino MJQ. Psychosocial aspects of work and minor psychic disorders in nursing: use of combined models. Rev Latino-Am Enfermagem. 2018;26:e3068. Disponível em: 10.1590/1518-8345.2769.3068.

5. Blanca-Gutiérrez JJ, Arias-Herrera A. Síndrome de burnout en personal de enfermería: asociación con estresores del entorno hospitalario, Andalucía, España. Enferm univ. 2018;15(1):30-44. Disponível em: <u>10.22201/eneo.23958421e.2018.1.62903</u>.

6. Vidotti V, Ribeiro RP, Galdino MJQ, Martins JT. Burnout Syndrome and shift work among the nursing staff. Rev Latino-Am Enfermagem. 2018;26:e3022. Disponível em: <u>10.1590/1518-</u> 8345.2550.3022.

7. Cruz SP, Cruz JC, Cabrera JH, Abellán MV. Factors related to the probability of suffering mental health problems in emergency care professionals. Rev Latino-Am Enfermagem. 2019;27:e3144. Disponível em: <u>10.1590/1518-8345.3079-3144</u>.

8. Alves MGM, Chor D, Faerstein E, Lopes CS, Werneck GL. Short version of the "job stress scale": a Portuguese-language adaptation. Rev Saúde Pública. 2004;38(2):164-71. Disponível em: 10.1590/S0034-89102004000200003.

9. Santana LC, Ferreira LA, Coimbra MAR, Rezende MP, Dutra CM. Aspecto psicossocial do ambiente de trabalho. Rev enferm UERJ. 2020;28:e50740. Disponível em: <u>10.12957/reuerj.2020.50740</u>.

10. Lautert, L. O desgaste profissional do enfermeiro [dissertation on the Internet]. Salamanca:

Universidade Pontificia Salamanca; 1995 [citado em: 21 mar. 2020]. 276 p. Disponível em: https://lume.ufrgs.br/handle/10183/11028.

11. Bardhan R, Heaton K, Davis M, Chen P, Dickinson DA, Lungu CT. A Cross sectional study evaluating psychosocial job stess and health risk in emergency department nurses. Int J Environ Res Public Health. 2019;16(18):3243. Disponível em: 10.3390/ijerph16183243.

12. Tavakoli N, Shaker SH, Soltani S, Abbasi M, Amini M, Tahmasebi A, et al. Job burnout, stress, and satisfaction among emergency nursing staff after health system transformation plan in Iran. Emerg. [Internet]. 2018 [citado em: 21 mar. 2020]; 6(1):e41. Disponível em:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6 289161/.

13. Fortini RG, Sabóia VM, Gomes DF, Ferreira AMO. O esgotamento físico dos enfermeiros no setor de urgência e emergência: revisão integrativa. Rev Nursing [Internet]. 2019 [citado em: 21 mar. 2020]; 22(251):2839-43. Disponível em:

http://www.revistanursing.com.br/revistas/251/p g26.pdf.

14. Adriaenssens JEF, De Gucht V, Maes S. Causes and consequences of occupational stress in emergency nurses, a longitudinal study. J Nurs Manag. 2013;23(3):346-58. Disponível em: <u>10.1111/jonm.12138</u>.

15. Trousselard M, Dutheil F, Naughouton G, Cosserant S, Amadon S, Dualé C, et al. Stress among nurses working in emergency, anesthesiology and intensive care units depends on qualification: a job demand-control survey. Int Arch Occup Environ Health. 2016;89(2):221-29. Disponível em: 10.1007/s00420-015-1065-7.

16. Petersen RS, Marziale MHP. Analysis of work capacity and stress among nursing professionals with

musculoskeletal disorders. Rev Gaúcha Enferm. 20 17;38(3):e67184. Disponível em: <u>10.1590/1983-</u> 1447.2017.03.67184.

17. Oliveira EB, Gallasch CH, Junior PPAS, Oliveira AVR, Valerio RL, Dias LBS. Occupational stress and burnout in nurses of an emergency service: the organization of work. Rev Enferm UERJ. 2017;25:e28842. Disponível em: 10.12957/reuerj.2017.28842.

18. Munhoz OL, Arrial TS, Barlem EL, Dalmolin GL, Andolhe R, Magnago TS. Estresse ocupacional e burnout em profissionais de saúde de unidades de perioperatório. Acta Paul Enferm. 2020;33:eAPE20190261. Disponível em: 10.37689/acta-ape/2020AO0261.

19. Borges EMN, Fonseca CINS, Baptista PCP, Queirós CML, Baldonedo-Mosteiro M, Mosteiro-Diaz MP. Compassion fatigue among nurses working on an adult emergency and urgent care unit. Rev Latino-Am Enfermagem. 2019;27:e3175. Disponível em: <u>10.1590/1518-8345.2973.3175</u>.

20. Palazoğlu CA, Koç Z. Ethical sensitivity, burnout, and job satisfaction in emergency nurses. Nurs Ethics. 2017;26(3):809-22. Disponível em: 10.1177/0969733017720846.

21. Danaci E, Koc Z. The association of job satisfaction and burnout with individualized care perceptions in nurses. Nurs Ethics. 2019;27(1):301-15. Disponível em: 10.1177/0969733019836151.

22. Guirardello EB. Impact of critical care environment on burnout, perceived quality of care and safety attitude of the nursing team. Rev Latino-Am Enfermagem. 2017;25:e2884. Disponível em: 10.1590/1518-8345.1472.2884.

23. Corrêa P, Oliveira PAB. The absense of santa catarina state public servers. Rev Prâksis. 2020;17(1):57-76. Disponível em: 10.25112/rpr.v1i0.2079.

24. Fontova-Almató A, Suñer-Soler R, Salleras-Duran L, Bertran-Noguer C, Congost-Devesa L, Padrosa-Ferrer M, et al. Evoluation od job satisfaction and burnout levels of Emergency Department Professionals during a Period of Economic Recession. Int J Environ Res Public Health. 2020;17(3):e921. Disponível em: 10.3390/ijerph17030921.

25. Nobre DFR, Rabiais ICM, Ribeiro PCPSV, Seabra PRC. Burnout assessment in nurses from a general emergency service. Rev Bras Enferm. 2019;72(6):1457-63. Disponível em: 10.1590/0034-7167-2017-0870.

Responsible editors: Patrícia Pinto Braga Aires Garcia dos Santos Junior

Note: There was no funding from a development agency.

Received in: 07/07/2021 Approved in: 10/04/2022