

XVI FÓRUM DE CERTIFICAÇÃO DO ERGONOMISTA BRASILEIRO XVII FÓRUM DOS GRUPOS TÉCNICOS DA ABERGO

Burnout Syndrome in Intensive Care Doctors who worked in the Intensive Care Unit (ICU) during the Covid-19 period

Márcio Alves Marçal - Universidade Federal dos Vales do Jequitinhonha e do Mucuri (UFVJM) Programa de Mestrado em Ergonomia da UFPE – <u>marcioalvesmarcal@gmail.com</u> Rayane de Araujo Oliveira - Universidade Federal dos Vales do Jequitinhonha e do Mucuri (UFVJM) Cláudia Ferreira Mazzoni - Programa de Mestrado em Ergonomia da UFPE Guilherme Henrique M. Amaral - Programa de Mestrado em Ergonomia da UFPE Elaine da Silva Abreu - Programa de Mestrado em Ergonomia da UFPE Fernanda Oliveira Petry - Programa de Mestrado em Ergonomia da UFPE Eduarda Rodrigues de S. Soares - Universidade Federal dos Vales do Jequitinhonha e do Mucuri (UFVJM)

Summary

Burnout Syndrome (BS) arises when occupational stress becomes chronic, with progression of emotional exhaustion, depersonalization and low professional fulfillment. In the Intensive Care Unit (ICU), exhaustion is common as it is a stressful and exhausting environment, a place where a large number of intensive care doctors attended during the Covid-19 pandemic. This study aims to evaluate the prevalence of BS and its occupational risk factors related to the work of intensive care physicians, who worked to care for patients at a university hospital during the Covid-19 period. This is a cross-sectional study. Data collection was carried out with 21 doctors, through the application of the Socio-Demographic and Occupational Health, Psychosocial Risk Assessment and Maslach Burnout Inventory questionnaires. As a result, an average of 46.29 hours worked per week was obtained. The prevalence of BS was considered high (85.7%), with 71.4% showing a high level of emotional exhaustion, 42.8% a high level of depersonalization and 47.6% a high level of professional achievement. When relating SB and psychosocial risk factors, 80% presented a high risk factor related to factors specific to the task, 80% regarding institutional aspects and 70% regarding personal aspects. It was concluded that excessive tasks and long working hours during the Covid-19 pandemic influenced the physical and mental exhaustion of these workers, favoring the emergence of BS.

Keywords: Burnout Syndrome; Intensive Care Doctors; Covid-19; Ergonomics.

1. Introduction

The COVID-19 pandemic caused by the new coronavirus (SARS-CoV-2) has proven to be one of the biggest health challenges on a global scale of this century. In mid-April 2020, a few months after the start of the epidemic in China at the end of 2019, there had already been more than 2 million cases and 120,000 deaths worldwide from COVID-19 (WERNECK; CARVALHO, 2020). With the beginning of the outbreak, a cascade of negative consequences emerged, which affected the mental and psychological health of frontline healthcare professionals (PRETI et al., 2020).

Occupational stress results from the worker's perception that the work environment is threatening to their physical and/or mental health, because they believe that this environment has excessive demands or because they themselves do not have sufficient resources to face them (FRANÇA; RODRIGUES, 1997). Loiola and Martins (2019) define exhaustion as a feeling of physical and mental exhaustion. These are feelings of excessive demands and a decrease in emotional resources to deal with the stressful situation.

Exhaustion is common in the Intensive Care Unit (ICU) as it is an unhealthy and exhausting environment, also characterized as stressful, both for patients and their families, as well as for the team that works there (SILVA, 2010). Regarding the team, it is worth highlighting several stressful situations that are experienced there, such as the constant requests from the patient and family, the intense working day, contact with pain and the death process, being constantly on alert and subjected to pressure regarding decision-making at critical moments, among other factors (LUCCHESI; MACEDO; MARCO, 2008).

In this context, the ICU team lives with high levels of commitment and emotional involvement, having to deal with different stressors arising from the nature of the activity carried out or the characteristics of the organization where they perform their functions, such as: the overload of the workday work, lack of recognition of work, ambiguity and uncertainty of the role to be defined, lack of preparation to deal with emotional demands from patients and families, and others (SILVA, 2010).

In addition to being exposed to tensions arising from frequent contact with pain, suffering, terminal patients and fear of making mistakes, health professionals find themselves faced with their own life, health or illness, their own conflicts and frustrations, factors stressful situations that can generate somatization, absenteeism, and the triggering of mental disorders such as anxiety and depression (LUCCHESI; MACEDO; MARCO, 2008).

When this occupational stress becomes chronic, Burnout Syndrome (BS) arises, as a response to the chronic emotional tension caused by dealing excessively with people. This syndrome occurs in three progressive dimensions: emotional exhaustion, depersonalization and low professional achievement. (PERNICIOTTI, et al., 2020).

Thus, BS, in addition to affecting the physical and emotional health of professionals, brings worrying consequences at individual and organizational levels, as it triggers emotional exhaustion manifested in the loss of enthusiasm for work and a feeling of helplessness. Their routine, especially those who work in ICUs, in addition to being busy, is extremely challenging. In addition to the fact that those who have high levels of Burnout tend to commit more medical errors and compromise the quality of care (ROMANI; ASHKAR, 2014).

Considering the aspects presented about BS, it is important to develop studies on its prevalence in intensive care physicians who worked in ICUs during the COVID-19 period, in order to promote reflections on working conditions and provide guidance future for this occupational category.

2. Objectives

- 2.1. General: To evaluate the prevalence of Burnout Syndrome in intensive care physicians at Hospital das Clínicas de Pernambuco (HCPE).
- 2.2. Specifics:

Identify the main occupational risk factors for the emergence of Burnout Syndrome;
Identify the main aspects related to the task performed, institutional aspects and personal aspects that may influence the occurrence of Burnout Syndrome.

3. Methodology

3.1 Study population

The study population was made up of all intensive care physicians who worked during the COVID-19 period during the first half of 2021. The inclusion criteria were: being medical professionals, of both sexes, who carried out their activities at Hospital das Clínicas of Pernambuco, caring for patients in the Intensive Care Units (ICU). And the exclusion criteria in the research were: professionals who are not in the field of medicine, professionals who did not work in the ICU, professionals who did not respond to all the questionnaires; professionals who did not sign the Free and Informed Consent Form or were away from service for some specific reason during the data collection period.

3.2 Research instruments and procedures

3.2.1 Socio-Demographic and Occupational Health Questionnaire

In a reserved room, with only the presence of the examiner and the interviewee, personal data was collected using the Socio-Demographic and Occupational Health questionnaire, which was planned based on closed questions and provided various data for the study, such as : age; Weight; height; gender; marital status; graduation; time in the profession; average weekly hours worked during the pandemic and most shifts worked during it.

3.2.2 Psychosocial Risk Factor Assessment Questionnaire

The instrument applied to evaluate psychosocial stressors in the work context was the Inventory of Perceived Malaise in the Workplace (IMPAL), with the aim of measuring the impact that different work stressors have on people. This inventory was validated by Figueroa et al., in 2001. The instrument was structured taking into account different areas such as the physical environment at work, the factors of the task itself, the organization of working time, institutional and personal aspects (FIGUEROA et al. al., 2001).

3.2.3 Maslach Burnout Inventor (MBI-HSS)

The instrument used in this study to measure Burnout Syndrome in intensive care physicians was the Maslach Burnout Inventory (MBI), which is a self-administered questionnaire, created by Christina Maslach and Susan Jackson in 1978 and adapted by Tamayo in 1997 (LIMA et al., 2009). The construction of the MBI started from two dimensions: emotional exhaustion and depersonalization. The third dimension, low professional fulfillment, emerged after a study carried out with hundreds of professionals from different areas (MASLACH, 1993).

The Maslach Burnout Inventory (MBI) is a questionnaire composed of 22 questions, where: 9 items assess the dimension of emotional exhaustion (1, 2, 3, 6, 8, 13, 14, 16, 20); 5 items, the depersonalization dimension (5, 10, 11, 15, 22); and 8 items, the dimension of professional involvement or fulfillment (4, 7, 9, 12, 17, 18, 19, 21) (MASLACH, 1998). It is worth highlighting that the definition of burnout came into fruition with the development of the MBI, as the concept of the syndrome is more accepted today due to the factor analysis carried out in this instrument, which conceptualized the syndrome as being characterized by Emotional Exhaustion, Depersonalization and Lack of Personal Achievement (GIL-MONTE; PEIRÓ, 1997).

Each question received a score from 0 to 6 and for each dimension the points achieved in the group of questions were added. For emotional exhaustion, a score greater than or equal to 27 indicates a high level; from 17 to 26, moderate level; and less than 16, low level. For depersonalization, scores equal to or greater than 13 indicated a high level, from 7 to 12, moderate, and less than 6, a low level. For professional achievement, scores from zero to 31 indicate a high level, from 32 to 38; moderate level and greater than or equal to 39, low. Although there is no consensus in the literature for the diagnosis of BS, the definition was the presence of a high level in at least one of the three dimensions (BARROS et al., 2008).

The version of the MBI used in this study was the General Survey (GS), which can be applied to a wide range of professions (MASLACH; LEITER, 2009).

3.2.4. Procedures for Data Analysis

Statistical analysis was carried out using the Statistical Package for the Social Sciences (SPSS) software version 19. Deductive analyzes were carried out on the organization of data, accounting of frequencies and representation of results in graphs, in order to enable better interpretation and analysis of the same. Categorical data were expressed as absolute counts with frequencies and percentages.

4. Results and Discussion

4.1. Socio-Demographic and Occupational Health Data

A total of 21 critical care physicians participated in this study. The time since training for these professionals varied between 5 and 24 years, which is extremely relevant because, according to the study by Palmer-Morales et al. (2005), working in the profession for more than 13 years is a risk factor for burnout.

Regarding the weekly hours worked in intensive care units, the average was 46.29 hours (SD 12.10). The average number of hours worked by professionals was below that found in other studies, such as that by Tironi et al. (2016) who presented an average of hours worked between 49 and 72 hours per week, while Nascimento Sobrinho et al. (2010) mentioned that 66.4% of the participants in their study had a workload between 60 and 90 hours per week.

Regarding the age of the respective professionals, the age range was between 31 - 47 years old, with an average of 35.9 years old, a value similar to what was found in other research. Oliveira (2019) found an average age of 28.11 years. Tironi (2016) obtained an average of 39 years and Tironi et al. (2009) obtained an average of 37 years.

Regarding factors related to occupational activity, 71% stated that speed is required to complete the proposed tasks even if they are fulfilling their schedule, 85.7% feel some difficulty in carrying out their duties due to the insufficient number of employees in their respective sectors, 24% believe that the time they have to carry out their work is insufficient and 29% do not consider the company's managers to be safe and capable.

4.2. Prevalence of Burnout Syndrome

The prevalence of Burnout Syndrome in the studied population was 85.7%, considered high (Graph 1). However, in the literature this prevalence varies greatly between studies depending on the population assessed and the conceptual values used as reference. This study obtained a higher percentage than the studies by Barros et al. (2008), Gonçalves et al. (2011) and França et al. (2012) who obtained 63.3%, 50% and 76.3% respectively. The higher value found in this study can be explained by the fact that the studies mentioned were not carried out during the Covid-19 pandemic. In a study carried out in a university hospital, during this pandemic, found a high prevalence of BS in a population of anesthesiologists, including: emotional exhaustion (85%); depersonalization (52.5%); professional fulfillment (67.5%). Results similar to our study (ANDRADE; MARÇAL, 2021).

The three main spheres of Burnout Syndrome are emotional exhaustion, depersonalization and professional fulfillment (MASLACH; JACKSON; LEITER, 1997). Emotional exhaustion, considered high in this study, is a relevant factor with regard to quality of life. It is considered the first symptom of Burnout Syndrome, and samples often have higher averages in this dimension (MASLACH; JACKSON, 1981). It turns out that high levels of the emotional exhaustion component, a central factor in professional burnout, lead to a degeneration in the quality of health and life, emotional exhaustion and a feeling of lack of energy, exposing an inverse association with work performance (DA SILVA et al., 2015).

The results obtained for the three spheres of the syndrome, described in Table 1, show very high values for emotional exhaustion with 71.4% presenting a high level, 23.8% presenting a moderate level and 4.8% presenting a low level. The research by Da Silva et al. (2015), with nursing professionals in two hospitals in Rio de Janeiro, showed high emotional exhaustion, which was 49 individuals (37.7%). In the study by Andrade and Marçal (2021), with anesthesiologists, 55% of the sample presented a high level for the development of BS; 30% presented a moderate level; and 15% had a low level, corroborating this research.

The depersonalization dimension is characterized by the development of negative feelings and attitudes at work, such as insensitivity and lack of motivation. It is seen as an exclusive characteristic of burnout (MOREIRA et al., 2009; GRUNFELD et al., 2000). In this way, it would be the triggering dimension of the process (GOLEMBIEWSKI; MUNZENRIDER; CARTER 1983). Regarding its frequency, 42.8% (9 participants) presented a high level, 42.8% (9 participants) presented a moderate level and 9.5% (2 participants) presented a low level. With different results from this study, Andrade and Marçal (2021) showed, in the depersonalization dimension, a high level of 15% for the development of BS; 37.5% had a medium risk factor; and 47.5% had a low risk factor. Once the professional feels inept, through a decrease in self-confidence and a feeling of failure, there is a reduction in personal fulfillment at work. It is important to highlight that this dimension is considered, by some authors, as the last reaction to stress generated by the demands of the work environment (TIRONI et al., 2009; GRUNFELD et al., 2000). In this study, with regard to professional achievement, 47.6% (10 participants) presented a high level, 23.8% (5 participants) presented a moderate level and finally 28.5% (6 participants) presented a low level (Table 1).

Lima et al. (2013) found a very high level in the professional fulfillment dimension (81%), which was not demonstrated in this study. In contrast, Barbosa et al. (2017) corroborated this work, with 51.16% of individuals having a high level in the respective dimension.

When we analyzed separately, the most affected dimension was emotional exhaustion, which is considered a reaction to work conditions, which can be translated as both physical and emotional overload. Depersonalization was the second most affected dimension and, lastly, professional fulfillment.

Table 1 - Criteria for identifying Burnout Syndrome.					
Variables	n	%			
Emotional exhaustion					
Low	1	4,8%			
Moderate	5	23,8%			
High	15	71,4%			
Depersonalization					
Low	2	9,5%			
Moderate	9	42,8%			
High	9	42,8%			
Professional achievement					
Low	6	28,5%			
Moderate	5	23,8%			
High	10	47,6%			

Source: Research data, 2021.

4.3 Psychosocial Risk Factors

When relating Burnout Syndrome to psychosocial risk factors, issues related to factors specific to the task, institutional aspects and personal aspects were analyzed.

Among the various definitions of psychosocial risks, some stand out. The International Labor Organization, in 1986, defined psychosocial factors at work as factors capable of influencing workers' health, performance and satisfaction at work and which consist, on the one hand, of interactions between the environment, content, nature and working conditions, and on the other, the worker's needs, capabilities, culture and living conditions outside of work (ILO, 1986).

According to the World Health Organization (WHO), psychosocial factors in occupation can be defined as those factors that influence the health and well-being of the individual and group and derive from the behavioral psychology of the individual, the structure and function of the organizational work (WHO, 1981). In the work context, these risks have negative consequences for both society, organizations and the health of workers (PEREIRA; RIBEIRO, 2017).

Regarding the answers obtained through the application of the questionnaire to evaluate the psychosocial aspects of the activity during the pandemic, it is noteworthy that they were classified as Yes = 0 and No = 1. Where "0" means high risk factor for the development of burnout and "1" means low risk factor. The aforementioned questionnaire consists of 30 questions, divided into 3 parts: 10 related to factors specific to the task, 10 related to institutional aspects and 10 related to personal aspects.

4.3.1 Factors Task Aspects

As for questions related to the factors specific to the task, 80% presented

high risk factor for developing burnout, while 20% had a low risk factor for the syndrome. These results differed from the study by Andrade and Marçal (2021), where 60% of anesthesiologists presented a "medium" risk factor for developing burnout, while 40% presented a "high" risk factor for the syndrome.

Some factors caused more embarrassment among intensive care physicians, such as: Feeling that they demand too much from me (work overload) (81%), not being paid for overtime worked (conflict over financial remuneration) (76.2%), difference in opinions between co-workers (relationship between professionals) (71.4%), and the lack

of solidarity between colleagues (relationship between professionals) (66.7%), were the issues that scored the most (Table 2).

These results were similar to the study by Andrade and Marçal (2021), which also highlighted the most uncomfortable factors among anesthesiologists, namely: Feeling that they demand too much from me (work overload), not being paid for the extra hours worked (pay conflict financial situation), lack of solidarity between colleagues (relationship between professionals), and the difference of opinions between co-workers (relationship between professionals).

Psychosocial aspects specific to the task	0 (YES)	1 (NO)	Risk factor			
Feeling that they demand too much from me	17 (81%)	4 (19%)	High			
Not getting paid for overtime worked	16 (76,2%)	5 (23,8%)	High			
Difference of opinions between co-workers	15 (71,4%)	6 (28,6%)	High			
Lack of solidarity among colleagues	14 (66,7%)	7 (33,3%)	High			
Dispute between colleagues	13 (61,9%)	8 (38,1%)	High			
Do a lot of difficult work	12 (57,1%)	9 (42,9%)	High			
Feeling that most of the work is for me	11 (52,4%)	10 (47,6%)	High			
Do the same task every day	11 (52,4%)	10 (47,6%)	High			
Fear of losing your job	10 (47,6%)	11(52,4%)	Low			
High turnover among the work team	10 (47,6%)	11 (52,4%)	Low			

Table 2 - Stressful factors related to specific aspects of the task

Source: Research data, 2021.

Work overload is linked to excessive demands, excessively long working hours and short deadlines, which are common causes of stress in intensive care professionals. Among the problems relating to mental health potentially associated with the characteristics of medical work, work overload stands out, especially during shifts. It highlights the professional in dealing with the pain, suffering and death of their patients (NASCIMENTO SOBRINHO et al., 2006).

Another psychosocial factor related to the work context that generates stress is the relationship between professionals. A study carried out in adult ICUs in French public hospitals showed that conflicts with co-workers were associated with a higher level of burnout (EMBRIACO et al., 2007).

In this study, carried out during the COVID-19 pandemic, intensive care physicians experienced work overload during their daily work due to increased demand and a reduced number of professionals.

4.3.1 Factors Institutional Aspects

With regard to questions related to institutional aspects, 80% indicated a high risk factor for burnout, and 20% indicated a low risk factor for the syndrome, coincidentally the same frequency found in task aspects. Higher results than those found among anesthesiologists in the work of Andrade and Marçal (2021), where 50% were indicated as a medium level for a risk factor for burnout, and 50% indicated a high risk factor for the syndrome.

The items that stood out the most are associated with: Feeling that I cannot talk to superiors (81%), personal conflict between what I think is right and what is required (76.2%), not having participation in decision-making (71.4%), and that superiors only point out my mistakes (66.7%) (Table 3).

Institutional psychosocial aspects	0 (YES)	1 (NO)	Risk factor
Feeling like I can't talk to superiors	17 (81%)	4 (19%)	High
The conflict between what I think is right and what is required of me	16 (76,2%)	5 (23,8%)	High
Not participating in decision-making	15 (71,4%)	6 (28,6%)	High
May superiors only point out my mistakes	14 (66,7%)	7 (33,3%)	High
When superiors arrive I feel intimidated	13 (61,9%)	8 (38,1%)	High
Lack of recognition of my dedication to the company	12 (57,1%)	9 (42,9%)	High
Lack of clarity in work standards	11 (52,4%)	10 (47,6%)	High
Not knowing the criteria with which I am evaluated	11 (52,4%)	10 (47,6%)	High
I feel that the relationship with my colleagues is not very good	10 (47,6%)	11 (52,4%)	Low
Not knowing who is really in charge of my work	10 (47,6%)	11 (52,4%)	Low

Table 3 - Stressful factors related to institutional aspects

Source: Research data, 2021.

It is believed that teamwork and mutual collaboration is essential and encourages facing obstacles in daily work. Low cooperation between professionals can directly interfere with work, communication between the team is often fragmented, fast and with some difficulty, due to the noise of technological equipment needed in ICUs (LEITÃO et al., 2008; SILVA ; TEIXEIRA, 2015).

Several studies demonstrated similarities with the results found in this research. For Schmidt (2009), the complexity of human and work relationships, autonomy, high responsibility are causal factors for the development of burnout syndrome. In the research by Andrade and Marçal (2021), the institutional aspects that stood out most were: lack of recognition of my dedication to the company, personal conflict between what I think is right and what is required by the company, lack of clarity in work standards and not knowing the criteria with which I am evaluated.

In the work context, intensive care physicians suffer from work overload in a quantitative way and is highlighted as the main factor, while risk factors refer to conflicts in the ICU environment with colleagues or interdisciplinary colleagues (EMBRIACO et al., 2007; CHLAN, 2013; MOSS et al., 2016).

Such data reveal that not only the environmental factors of the hospital context and ICUs are predictors of the syndrome, as well as the social factors that compose it. In the study by Barbosa et al. (2017), doctors highlighted stressful factors in their work environment, with 18.6% reporting feeling that they had communication problems with their superiors, 20.93% feeling prevented from acting in accordance with their principles in the work environment, and 23.25% said they felt uncomfortable with frequent changes to rules and regulations in the establishment where they carried out their work functions. In this study, it was found that in addition to adversities in relationships between coworkers, intensive care physicians also faced conflicts with their superiors.

4.3.1 Factors Personal Aspects

Regarding questions about personal aspects, 70% indicated a high risk factor and 30% indicated a low risk factor for developing the syndrome. The study by Andrade and Marçal (2021) presented lower values in these aspects. The sample showed 30% secondary level; 50% high level; and 10% too high a level for the development of the syndrome. "Wasting time on activities other than mine" was the only question in which the entire study population indicated 100% for a high risk factor. "Knowing that my mistakes can harm other people" and "Being suffocated by this work" came soon after and generated greater agreement in relation to personal aspects, both with 85.7%.

Other prominent issues were facing problems that exceed responsibilities (81%) and knowing that I have little chance of progressing (Table 4). The research by Andrade and Marçal (2021) corroborates this study. According to the sample used, the personal aspects that appeared most frequently in the respective study were: knowing that my mistakes could harm other people (very high level), having to face problems that exceed my responsibilities (high level), knowing that I have few possibilities of progressing (high level), wasting time on activities other than mine (high level) and being suffocated by this work (high level).

Personal psychosocial aspects		1 (NO)	Risk
	U (YES)		factor
Wasting time on activities other than mine	21 (100%)	0 (%)	High
Knowing that my mistakes can harm other	18 (85,7%)	3 (14,3%)	High
people			
Being suffocated by this work	18 (85,7%)	3 (14,3%)	High
Tackling problems that exceed	17 (81%)	4 (19%)	High
responsibilities			
Knowing that I have little chance of	14 (66,7%)	7 (33,3%)	High
progressing			
Having difficulty sleeping	11 (52,4%)	10 (47,6%)	High
Work in isolation	12 (57,1%)	9 (42,9%)	High
Discontent with co-workers	10 (47,6%)	11 (52,4%)	Low
Between several tasks, not knowing which	10 (47,6%)	11 (52,4%)	Low
one to start with			
Having to interact with the same people	7 (33,3%)	14 (66,7%)	Low
every day			

Tabela 4 - Fatores estressantes relacionados aos aspectos pessoais

Source: Research data, 2021.

In the study by Lucca et al. (2017), within hospital institutions, nursing professionals identified, in a quantitative assessment, the high demand for work and the lack of autonomy as the main factors of work stress. The reduced possibility of progression at the institution mentioned in this work corroborates other studies, such as 13

that by Fabichak et al. (2014) who reports the perception of resident doctors at a large public hospital in the city of São Paulo, regarding the low recognition of the institution and appreciation of work.

In a survey by Machado (1997), when studying the profile of Brazilian doctors, he revealed that 80% of them consider medical activity exhausting, with this exhaustion being attributed to the following factors: excessive work; multiple jobs; low pay in many locations; poor working conditions; high professional responsibility; difficulties in relationships with patients; charging the population; loss of autonomy and growth in the number of professionals.

The difficulty sleeping highlighted in this study is also considered a stressful factor for the development of BS. In a survey carried out in 2017 with nursing technicians who worked night shifts, a high occurrence of Burnout and poor sleep quality was evidenced, with 61.73% showing a high rate of Burnout, and 74.4% having a poor sleep quality (SIMÕES; BIANCHI, 2017).

5. Conclusions

Burnout Syndrome appears silently in the daily lives of healthcare professionals who work in ICUs and who face various stressful situations on a daily basis. As they deal with critically ill patients most of the time, this can directly influence their lives. The professionals studied presented Burnout Syndrome. High and moderate risk factors that describe this syndrome were observed in the three domains evaluated: emotional exhaustion (95.2%), depersonalization (85.6%) and professional achievement (71.4%).

It was found that Burnout is more related to organizational factors (physical environment, organizational changes, institutional norms, bureaucracy, communication, autonomy, rewards and security) than to other factors, such as personal factors (age, gender, educational level, children, leisure).

The questionnaire applied to evaluate psychosocial risk factors consisted of questions related to the task itself, institutional aspects and personal aspects. Among the questions related to the task, "feeling that they demand too much of me" was the one that showed the highest average. In issues related to institutional aspects, it was "feeling that I cannot

talk to my superiors" that stood out most. And regarding issues associated with personal aspects, the issue with the highest average was "being suffocated by this work".

It is concluded from this study that excessive tasks and long working hours can directly favor the emergence of BS, which can negatively affect not only professionals, but also the work environment, the multidisciplinary team and the patients themselves, leading to Take into account that a professional who is emotionally affected is not able to provide good care due to the presence of BS.

Thus, the syndrome is a limiting factor for good professional performance, in addition to altering the final quality of the work and services provided. It is important to highlight the need for new coping measures to reduce obstacles that arise in the work environment, aiming to improve the lives of professionals and the quality of care. For this to happen, we suggest new studies that can contribute to the process of preventing and eradicating Burnout Syndrome.

6. Bibliographic references

ANDRADE, O. S. A.; MARÇAL, M. A. **Prevalência da Síndrome de Burnout e seus fatores de risco na atividade de anestesiologistas durante a pandemia do Covid-19**. 2021. Dissertação (Mestrado em Ergonomia). Universidade Federal de Pernambuco, Recife, 2021.

BARROS, D. S. *et al.* Médicos plantonistas de unidade de terapia intensiva: perfil sócio-demográfico, condições de trabalho e fatores associados à síndrome de burnout. **Revista brasileira de terapia intensiva**, v. 20, n. 3, 2008.

BARROS, M. M. S. *et al.* Síndrome de Burnout em Médicos Intensivistas: Estudo em UTIs de Sergipe. **Temas em Psicologia**, 2016, Vol. 24, nº 1, p. 377-389. Disponível em: http://pepsic.bvsalud.org/pdf/tp/v24n1/v24n1a20.pdf. Acesso em: 20 jul. 2022.

BRASIL. **Decreto 3.048 de 6 de maio de 1999.** Aprova o regulamento da Previdência Social, e dá outras providências. Disponível em: http://www.planalto.gov.br/ccivil_03/decreto/d3048.htm. Acesso em: 20 jul. 2022.

BRASIL. Ministério da Saúde do Brasil. Organização Pan-Americana da Saúde no Brasil. **Doenças** relacionadas ao trabalho: manual de procedimentos para os serviços de saúde. Brasília: Ministério da Saúde do Brasil, 2001. Disponível em: <https://bvsms.saude.gov.br/bvs/publicacoes/doencas_relacionadas_trabalho1.pdf>. acesso em 7 mai. 2022.

CHLAN, L.L. Burnout syndrome among critical care professionals: a cause for alarm. **Critical Care Alert**, 21, 65-68. 2013

DA SILVA, J. L. L. et al. Psychosocial factors and prevalence of burnout syndrome among nursing workers in intensive care units. **Revista brasileira de terapia intensiva**, v. 27, n. 2, p. 125–133, 2015.

DE FRANÇA, T. L. B. *et al.* Síndrome de Burnout: características, diagnóstico, fatores de risco e prevenção. **Revista de enfermagem UFPE**, v. 8, n. 10, p. 3539–3546, 2014.

EMBRIACO, N. *et al.* Burnout syndrome among critical care healthcare workers. **Current opinion in critical care**, v. 13, n. 5, p. 482-488, 2007. Disponível em: <<u>https://journals.lww.com/co-criticalcare/Abstract/2007/10000/Burnout syndrome among critical care healthcare.4.aspx</u>>. Acesso em: 28 dez. 2021.

FABICHAK, C. S.-J. et al. Síndrome de burnout em médicos residentes e preditores organizacionais do trabalho. **Rev Bras Med Trab, v**, v. 12, n. 2, p. 79–84, 2014.

FIGUEROA, N. L. D.E *et al.* Um Instrumento para a Avaliação de Estressores Psicossociais no Contexto de Emprego. **Psicologia: reflexão e crítica**, v. 14, n. 3, p. 653-659, 2001. Disponível em: <https://www.scielo.br/j/prc/a/QSfFVLyMxzT3NF6jfsTvNPM/abstract/?lang=pt>. Acesso em: 15 dez. 2021.

FRANÇA, A.C. L.; RODRIGUES, A. L. **Stress e trabalho: guia básico com abordagem psicossomática**. Atlas, 1997. Disponível em: <<u>https://www.worldcat.org/title/stress-e-trabalho-guia-basico-com-abordagem-psicossomatica/oclc/45778097</u>>. Acesso em: 27 dez.2021.

FRANÇA, Salomão Patrício de Souza et al. Preditores da Síndrome de Burnout em enfermeiros de serviços de urgência pré-hospitalar. **Acta Paulista de enfermagem**, v. 25, p. 68-73, 2012.

GIL-MONTE, P. R., PEIRÓ, J. M. Desgaste Psíquico en el trabajo: el síndrome de quemarse. Madrid: **Editorial Sínteses**, 1997. Disponível em: https://gepeb.files.wordpress.com/2011/12/pedrogilmonte.pdf>. Acesso em: 16 dez. 2021.

GOLEMBIEWSKI, R. T.; MUNZENRIDER, R.; CARTER, D. Phases of progressive burnout and their work site covariants: critical issues in OD research and praxis. **The Journal of applied behavioral science**, v. 19, n. 4, p. 461–481, 1983.

GONÇALVES, Thiago Barbosa et al. Prevalência da síndrome de burnout em professores médicos de uma universidade pública de Belém do Pará. **Rev Bras Med Trab**, v. 9, n. 2, pág. 85-9, 2011.

GRUNFELD, E. et al. Cancer care workers in Ontario: prevalence of burnout, job stress and job satisfaction. **Journal de l'Association medicale canadienne** [Canadian Medical Association journal], v. 163, n. 2, p. 166–169, 2000.

LEITÃO, I. et al. Saúde ocupacional: analisando os riscos relacionados à equipe de enfermagem em uma unidade de terapia intensiva. **Ciência, Cuidado e Saúde**, n. 4, p. 476–484, 2008.

LIMA, C. F. *et al.* Avaliação psicométrica do Maslach Burnout Inventory em profissionais de enfermagem. **Encontro de Gestão de Pessoas e Relações de Trabalho**, v. 2, p. 1-11, 2009. Disponível em: http://www.anpad.org.br/admin/pdf/EnGPR156.pdf>. Acesso em: 16 dez. 2021.

LOIOLA, E.; MARTINS, M. C. Autoeficácia no trabalho e síndrome de burnout em profissionais de enfermagem. **Psicologia, Saúde & Doenças**, v. 20, n. 3, p. 813-823, 2019. Disponível em: < https://www.sp-ps.pt/downloads/download_jornal/677>. Acesso em: 27 dez. 2021.

LUCCA, S. R. DE et al. Aplicação de instrumento para o diagnóstico dos fatores de risco psicossociais nas organizações. **Revista Brasileira de Medicina do Trabalho**, v. 15, n. 1, p. 63–72, 2017.

LUCCHESI, Fátima; MACEDO, Paula Costa Mosca; MARCO, Mario Alfredo De. Saúde mental na unidade de terapia intensiva. **Rev. SBPH**, Rio de Janeiro, v. 11, n. 1, p. 19-30, jun. 2008. Disponível em http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1516-

08582008000100003&lng=pt&nrm=iso>. Acesso em: 04 mai. 2022.

MACHADO, M. H. Os médicos no Brasil: um retrato da realidade. Rio de Janeiro: FIOCRUZ, 1997.

MASLACH, C. A multidimensional theory of burnout. Theories of organizational stress, v. 68, p. 85, 1998.

MASLACH, C.; LEITER, M. P. The truth about burnout: How organizations cause personal stress and what to do about it. London, England: Jossey-Bass, 2009.

MOREIRA, D. S. *et al.* Prevalência da síndrome de burnout em trabalhadores de enfermagem de um hospital de grande porte da Região Sul do Brasil. **Cadernos de saúde publica**, v. 25, n. 7, p. 1559–1568, 2009.

MOSS, M. et al. An official Critical Care Societies Collaborative statement: Burnout syndrome in critical care healthcare professionals: A call for action. **Critical care medicine**, v. 44, n. 7, p. 1414–1421, 2016.

NASCIMENTO SOBRINHO, C. L. et al. Condições de trabalho e saúde mental dos médicos de Salvador, Bahia, Brasil. **Cadernos de saúde publica**, v. 22, n. 1, p. 131–140, 2006.

NASCIMENTO SOBRINHO, C. L. et al. Médicos de UTI: prevalência da Síndrome de Burnout, características sociodemográficas e condições de trabalho. **Revista brasileira de educação médica**, v. 34, n. 1, p. 106–115, 2010.

OIT. Organização Internacional do Trabalho. Les facterurs psychosociaux au travail. Nature, incidences, prévention. 1986. Bureau International du Travail. Genève.

OLIVEIRA, Paulo Roberto Cruvinel et al. Frequência da Síndrome de Burnout em médicos residentes. **Revista Residência Pediátrica**, v. 9, n. 2, p. 91-96, 2019.

OMS. Organização Mundial da Saúde. **Santé et bien-être sur les lieux de travail.** Rapport sur la réunion d'un groupe de travail de l'OMS. Prague, le 18-20 septembre 1979. Bureau Régional de l'Europe. Copenhague. Organisation Mondiale de la Santé, 1981.

PALMER-MORALES, Lourdes Yusvisaret et al. Prevalencia del Síndrome de agotamiento profesional en médicos anestesiólogos de la ciudad de Mexicali. **Gaceta médica de México**, v. 141, n. 3, p. 181-184, 2005.

PEREIRA, A. M. T. B. Elaboração e validação do ISB: inventário para avaliação da síndrome de burnout. **Boletim de Psicologia**, v. 65, n. 142, p. 59–71, 2015.

PEREIRA, S.; RIBEIRO, C. Riscos psicossociais no trabalho. Gestão e desenvolvimento, n. 25, p. 103–120, 2017.

PERNICIOTTI, Patrícia *et al.* Síndrome de Burnout nos profissionais de saúde: atualização sobre definições, fatores de risco e estratégias de prevenção. **Rev. SBPH**, São Paulo, v. 23, n. 1, p. 35-52, jun. 2020. Disponível em http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1516-08582020000100005&lng=pt&nrm=iso. Acesso em: 07 mai. 2022.

PRETI, Emanuele et al. The psychological impact of epidemic and pandemic outbreaks on healthcare workers: rapid review of the evidence. **Current psychiatry reports**, v. 22, n. 8, p. 1-22, 2020. Disponível em: <u>https://link.springer.com/article/10.1007/s11920-020-01166-z</u>. Acesso em: 28 dez.2021.

RODRIGUES, E. M.; JUNGES, J. R. Burnout entre médicos intensivistas ou Sociedade do burnout. **Saúde e** Sociedade, v. 27, n. 3, p. 809–819, 2018.Disponível em: https://www.scielosp.org/article/sausoc/2018.v27n3/809-819/. Acesso em: 28 dez. 2021.

ROMANI, Maya; ASHKAR, Khalil. Burnout among physicians. Libyan Journal of Medicine, v. 9, n. 1, 2014. Disponível em: https://www.ajol.info/index.php/ljm/article/view/102795. Acesso em: 28 dez.2021.

SCHMIDT, Denise Rodrigues Costa. Qualidade de vida no trabalho e sua associação com o estresse ocupacional, a saúde física e mental e o senso de coerência entre profissionais de enfermagem do bloco cirúrgico. 2009. Tese de Doutorado. Universidade de São Paulo. Disponível em: https://www.teses.usp.br/teses/disponiveis/22/22132/tde-29062009-143214/en.php. Acesso em: 23 fev. 2023.

SILVA, Alice Borges Humildes Cruz da. O estresse na prática profissional do psicólogo em UTI: uma revisão de literatura. **Rev. SBPH**, Rio de Janeiro, v. 13, n. 1, p. 33-51, jun. 2010. Disponível em http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1516-

08582010000100004&lng=pt&nrm=iso>. Acesso em: 04 mai. 2022.

SIMÕES, J.; BIANCHI, L. R. DE O. Prevalência da Síndrome de Burnout e qualidade do sono em trabalhadores técnicos de enfermagem. **Saúde e pesquisa**, v. 9, n. 3, p. 473, 2017.

TIRONI, M. O. S. et al. Trabalho e síndrome da estafa profissional (Síndrome de Burnout) em médicos intensivistas de Salvador. **Revista da Associação Medica Brasileira (1992)**, v. 55, n. 6, p. 656–662, 2009. TIRONI, Márcia Oliveira Staffa et al. Prevalência de síndrome de burnout em médicos intensivistas de cinco capitais brasileiras. **Revista brasileira de terapia intensiva**, v. 28, p. 270-277, 2016.

WERNECK, G. L.; CARVALHO, M. S. A pandemia de COVID-19 no Brasil: crônica de uma crise sanitária anunciada. **Cadernos de Saúde Pública**, v. 36, n. 5, p. e00068820, 2020. Disponível em : <u>https://www.scielosp.org/pdf/csp/2020.v36n5/e00068820/pt</u>. Acesso em: 27 dez. 2021.