



BURNOUT SYNDROME IN INTENSIVE CARE PHYSICIANS WHO WORKED IN THE INTENSIVE CARE UNIT (ICU) DURING THE COVID-19 PERIOD

Márcio Alves Marçal^{1*}

Rayane de Araujo Oliveira²

Cláudia Ferreira³

Guilherme Henrique M. Amaral⁴

Elaine da Silva Abreu⁵

Fernanda Oliveira Petry⁶

Eduarda Rodrigues de S. Soares⁷

Abstract

Burnout Syndrome (BS) arises when occupational stress becomes chronic, with progression of emotional exhaustion, depersonalization, and low professional achievement. In the Intensive Care Unit (ICU), burnout is common because it is a stressful and exhausting environment, where a large number of intensive care physicians attended during the Covid-19 pandemic. This study aims to assess the prevalence of BS and its occupational risk factors related to the work of intensive care physicians, who worked in patient care at a university hospital during the Covid-19 period. This is a cross-sectional study. Data collection was carried out with 21 physicians, through the application of the Sociodemographic 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% presenting a high level of emotional exhaustion, 42.8% a high level of depersonalization, and 47.6% a high level of professional achievement. When relating BS to psychosocial risk factors, 80% presented a high risk factor related to factors specific to the task, 80% to institutional aspects, and 70% to personal aspects. It was concluded that the excess of 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 Physicians; Covid-19; Ergonomics.

1. INTRODUCTION

The COVID-19 pandemic caused by the new coronavirus (SARS-CoV-2) has proven to be one of the greatest health challenges on a global scale this century. By mid-April 2020, a

¹Federal University of the Jequitinhonha and Mucuri Valleys (UFVJM). * marcioalvesmarcal@gmail.com.

²Federal University of the Jequitinhonha and Mucuri Valleys (UFVJM).

³UFPE.

⁴UFPE.

⁵UFPE.

⁶UFPE.

⁷Federal University of the Jequitinhonha and Mucuri Valleys (UFVJM).



few months after the beginning of the epidemic in China at the end of 2019, there had already been more than 2 million cases and 120 thousand deaths worldwide from COVID-19 (WERNECK; CARVALHO, 2020). With the onset of the outbreak, a cascade of negative consequences emerged, which affected the mental and psychological health of frontline health professionals (PRETI et al., 2020).

Occupational stress is due to the perception of workers that the work environment is a threat to their physical and/or mental health, because they believe that this environment has excess 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. It is about feelings of excessive demands and the decrease in emotional resources to deal with the stressful situation.

Exhaustion is common in the Intensive Care Unit (ICU) because 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 of the patient and family members, the intense working day, the contact with pain and the death process, being constantly on alert and subjected to pressures regarding decision-making at critical moments, among other factors (LUCCHESI; M; 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 performed or the characteristics of the organization where they perform their functions, such as: the overload of the working day, lack of recognition of work, ambiguity and uncertainty of the role to be delimited, the lack of preparation to deal with the emotional demands of 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 are faced with their own life, health or disease, their own conflicts and frustrations, stressful factors that can generate somatization, absenteeism, and the triggering of mental disorders such as anxiety and depression (LUCCHESI; M; 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 dimensions in progression: emotional exhaustion, depersonalization and low professional achievement. (PERNICIOTTI, et al., 2020).



Thus, BS, in addition to affecting the physical and emotional health of professionals, has worrying consequences at individual and organizational levels, since 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 make 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 favor future guidance for this occupational category.

2. GOALS

2.1. General: To assess the prevalence of Syndrome *Burnout* in intensive care physicians at the Hospital das Clínicas de Pernambuco (HCPE).

2.2. Specific:

- 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 can influence the occurrence of Burnout Syndrome.

3. METHODOLOGY

3.1. Study population

The study population was composed of all intensive care physicians who worked during the COVID-19 period during the first semester of 2021. The inclusion criteria were: being medical professionals, of both sexes, who developed their activities at the Hospital das Clínicas de Pernambuco, caring for patients in the Intensive Care Units (ICU). And the exclusion criteria in the research were: professionals who are not in the medical field, professionals who did not work in the ICU, professionals who did not answer all the questionnaires; professionals who did not sign the Informed Consent Form or were away from the 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 were collected through the Socio-Demographic and Occupational Health questionnaire, which was planned based on closed questions and provided several 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 shifts worked most during it.

3.2.2. Questionnaire for the Assessment of Psychosocial Risk Factors

The instrument applied to assess psychosocial stressors in the context of work was the Inventory of Perceived Discontent in the Work Environment (IMPAL), with the objective 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 work time, institutional and personal aspects (FIGUEROA *et 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 developed 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 achievement, emerged after a study developed 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 dimension of depersonalization (5, 10, 11, 15, 22); and 8 items, the dimension of illness or professional accomplishment (4, 7, 9, 12, 17, 18, 19, 21) (MASLACH, 1998). It is worth noting that the definition of *burnout* was concretized from the elaboration of the MBI, as the concept of the syndrome is more accepted nowadays due to the factor analysis made of this



instrument, which conceptualized the syndrome as being characterized by Emotional Exhaustion, Depersonalization and Lack of Personal Fulfillment (GIL-MONTE; PEIRÓ, 1997).

Each question received scores 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 performed using *the Statistical Package for the Social Sciences* (SPSS) software, version 19. Deductive analyses were made on the organization of the data, the accounting of frequencies and the representation of the results in graphs, in order to enable a better interpretation and analysis of them. 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 intensive care physicians participated in this study. The time since graduation of these professionals ranged from 5 to 24 years, which is extremely relevant because, according to the study by Palmer-Morales *et al.* (2005), practicing the profession for more than 13 years is a risk factor for *burnout*.

Regarding the weekly hours worked in the intensive care units, the average was 46.29 hours (SD 12.10). The average number of hours worked by the professionals was lower than that found in other studies, such as the one 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) reported 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 group between 31 and 47 years was found, with a mean of 35.9 years, a value similar to what was found in other studies. Oliveira (2019) found an average age of 28.11 years. Tironi (2016) had a mean age 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 though they are meeting their schedule, 85.7% feel some difficulty in performing their duties due to the insufficient number of employees in their respective sectors, 24% believe that the time they have to perform their work is insufficient and 29% do not consider the company's managers safe and capable.

4.2. Prevalence of Burnout Syndrome

The prevalence of Burnout Syndrome in the study population was 85.7%, which is considered high (Graph 1). However, in the literature, this prevalence varies greatly between studies depending on the population evaluated 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) which obtained 63.3%, 50% and 76.3% respectively. The higher value found in this study can be explained by the fact that the studies cited were not carried out during the Covid-19 pandemic. In a study carried out in a university hospital, during this pandemic, a high prevalence of BS was found in a population of anesthesiologists, as follows: emotional exhaustion (85%); depersonalization (52.5%); professional fulfillment (67.5%). Results similar to those of 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 it is common for samples to have higher averages in this dimension (MASLACH; JACKSON, 1981). It turns out that high levels in the emotional exhaustion component, a central factor of professional exhaustion, lead to degeneration of the quality of health and life, emotional exhaustion and the 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 had a high level for the development of BS; 30% had a moderate level; and 15% had a low level, corroborating this survey.

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) had a high level, 42.8% (9 participants) had a moderate level, and 9.5% (2 participants) had a low level. With different results from this study, Andrade and Marçal (2021) showed, in the dimension of depersonalization, 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 unfit, through a decrease in self-confidence and a sense of failure, there is a reduction in personal fulfillment at work. It is important to note that this dimension is considered, by some authors, as the last reaction to the 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) had a high level, 23.8% (5 participants) had a moderate level and, finally, 28.5% (6 participants) had a low level (Table 1).

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

When analyzed separately, the most affected dimension was emotional exhaustion, which is considered a reaction to work conditions, and 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%
Moderate Low		
Depersonalization	2	9,5%
Discharge	9	42,8%
Professional Achievement		
Low	6	28,5%
Moderate	5	23,8%
High	10	47,6%

Source: Survey data, 2021.

4.3. Psychosocial Risk Factors

When the Burnout Syndrome was related to psychosocial risk factors, issues related to the task's own factors, institutional aspects and personal aspects were analyzed.

Among the various definitions of psychosocial risks, some stand out. The International Labour Organization, in 1986, defined psychosocial factors at work as factors that can influence 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 hand, the needs, capacities, culture and living conditions of the worker outside work (ILO, 1986).

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

Regarding the answers obtained through the application of the questionnaire to assess 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 questionnaire consists of 30 questions, divided into 3 parts: 10 related to the factors of the task, 10 related to institutional aspects and 10 related to personal aspects.



4.3.1. Factors Aspects of the Task

Regarding questions related to the task's own factors, 80% had a high risk factor for the development of *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 had a "medium" risk factor for the development of *burnout*, while 40% had 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 (financial remuneration conflict) (76.2%), difference in opinions among co-workers (relationship between professionals) (71.4%), and lack of solidarity among 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 overtime worked (financial remuneration conflict), lack of solidarity among colleagues (relationship between professionals), and the difference in opinions between co-workers (relationship between professionals).

Table 2 - Stressors related to the aspects of the task

Psychosocial aspects of the task	0 (YES)	1 (NO)	Risk Factor
Feeling that they demand too much of me	17 (81%)	4 (19%)	High
Not being paid for overtime worked	16 (76,2%)	5 (23,8%)	High
Difference of opinion among colleagues from work	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 hard work	12 (57,1%)	9 (42,9%)	High
Feeling that most of the work is left to me	11 (52,4%)	10 (47,6%)	High
Do the same task all the same	11 (52,4%)	10 (47,6%)	High
The days			
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

Source: Survey data, 2021.



Work overload is linked to excess demands, excessively long working hours, short deadlines, which are common causes to generate stress in intensive care professionals. Among the problems related to mental health potentially associated with the characteristics of medical work, work overload stands out, especially in the on-call regime. The same evidences the professional in dealing with the pain, suffering and death of his patients (NASCIMENTO SOBRINHO *et al.*, 2006).

Another psychosocial factor related to the work context that generates stress is the relationship between professionals. A study conducted 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, conducted during the COVID-19 pandemic, intensive care physicians had work overload during their daily work due to increased demand and the reduced number of professionals.

4.3.2. 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 the aspects of the task. These results are higher than those found among anesthesiologists at the Andrade and Marçal (2021) work, where 50% of medium level were indicated as 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 indicate my mistakes (66.7%) (Table 3).

Table 3 - Stressors related to institutional aspects

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
Have no participation in decision-making	15 (71,4%)	6 (28,6%)	High
Let the superiors only point out my mistakes	14 (66,7%)	7 (33,3%)	High



When the superiors arrive I feel intimidated	13 (61,9%)	8 (38,1%)	High
Lack of recognition of mine Dedication to the company	12 (57,1%)	9 (42,9%)	High
Lack of clarity in labor 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's really in charge of mine work	10 (47,6%)	11 (52,4%)	Low

Source: Survey data, 2021.

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

Several studies have shown similarity with the results found in this research. For Schmidt (2009), the complexity of human and work relationships, autonomy, and 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 the 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 quantitatively and it is highlighted as the main factor, while risk factors refer to conflicts in the ICU environment with colleagues or with interdisciplinary colleagues (EMBRIACO *et al.*, 2007; CHLAN, 2013; MOSS *et al.*, 2016).

These data reveal that not only the environmental factors of the hospital context and ICUs are predictors of the syndrome, but also the social factors that compose it. In the study by Barbosa *et al.* (2017), the physicians pointed out 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% stating that they felt uncomfortable with frequent changes in rules and norms in the establishment where they performed their work functions. In this study, it was



found that in addition to adversities in relationships between co-workers, intensive care physicians also faced conflicts with their superiors.

4.3.3. Factors Personal Aspects

Regarding questions about personal aspects, 70% indicated a high risk factor and 30% indicated a low risk factor for the development of the syndrome. The study by Andrade and Marçal (2021) presented lower values in these aspects. The sample showed 30% of high school level; 50% high level; and 10% very high 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% as a high risk factor. "Knowing that my mistakes can harm other people" and "Being suffocated by this work" came soon after and generated greater consent in relation to personal aspects, both with 85.7%.

Other issues of note were facing problems that exceed responsibilities (81%) and knowing that I have little possibility 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 can harm other people (very high level), having to face problems that exceed my responsibilities (high level), knowing that I have little possibility of progressing (high level), wasting time with activities other than my own (high level) and being suffocated by this work (high level).

Table 4 - Stressors related to personal aspects

Personal psychosocial aspects	0 (YES)	1 (NO)	Risk Factor
Wasting time on other activities that Not mine	21 (100%)	0 (%)	High
Know that my mistakes can hurt Other people	18 (85,7%)	3 (14,3%)	High
To be suffocated by this work	18 (85,7%)	3 (14,3%)	High
Addressing problems that exceed the Responsibilities	17 (81%)	4 (19%)	High



Knowing that I have little chance of progress	14 (66,7%)	7 (33,3%)	High
Having trouble sleeping	11 (52,4%)	10 (47,6%)	High
Working in isolation	12 (57,1%)	9 (42,9%)	High
Discontent with Colleagues from work	10 (47,6%)	11 (52,4%)	Low
Between several tasks not knowing which one of them to start	10 (47,6%)	11 (52,4%)	Low
Having to relate every day to The same people	7 (33,3%)	14 (66,7%)	Low

Source: Survey data, 2021.

In the study by Lucca *et al.* (2017), within hospital institutions, nursing professionals identified, in a quantitative evaluation, the high demand for work and the absence of autonomy as the main factors of work stress. The reduced possibility of progression in the institution mentioned in this study corroborates other studies, such as the one by Fabichak *et al.* (2014) which reports the perception of resident physicians of a large public hospital in the city of São Paulo, about the low recognition of the institution and appreciation of the work.

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

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

5. CONCLUSIONS



Burnout Syndrome appears silently in the daily lives of health professionals who work in ICUs and who face various stressful situations on a daily basis. Because they are dealing with critically ill patients most of the time, this can directly influence their lives. The professionals studied had Burnout Syndrome.

High and moderate risk factors describing this syndrome were observed in the three domains evaluated: emotional exhaustion (95.2%), depersonalization (85.6%) and professional accomplishment (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 in the assessment of 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 from me" was the one that showed the highest average. In the issues related to institutional aspects, it was "feeling that I can't talk to my superiors" that stood out the most. And as for the issues associated with personal aspects, the question with the highest average was "being suffocated by this work".

It is concluded with this study that the excess of tasks and long working hours can directly favor the emergence of BS, which can negatively affect not only the professionals, but also the work environment, the multidisciplinary team and the patients themselves, taking 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 changing the final quality of the work and services provided. It is important to highlight the need for new coping measures to reduce the obstacles that arise in the work environment in order to improve the lives of professionals and the quality of care. For this to occur, we suggest new studies that can contribute to the process of prevention and eradication of Burnout Syndrome.

REFERENCES



- ANDRADE, O. S. A.; MARÇAL, M. A. **Prevalência da Síndrome de Burnout e seus fatores de risco na atividade de anesthesiologists 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: https://journals.lww.com/criticalcare/Abstract/2007/10000/Burnout_syndrome_among_critical_care_healthcare.4.aspx. 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. 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: <https://www.worldcat.org/title/stress-e-trabalho-guia-basico-com-abordagem-psicossomatica/oclc/45778097>. 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 Síntesis**, 1997. Disponível em: <<https://gepeb.files.wordpress.com/2011/12/pedrogil-monte.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 pública**, 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 pública**, 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 facteurs 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: <https://link.springer.com/article/10.1007/s11920-020-01166-z>. 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.scielo.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 Médica 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 : <https://www.scielo.org/pdf/csp/2020.v36n5/e00068820/pt>. Acesso em: 27 dez. 2021.