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# Burnout Syndrome- Stress in Health Care Professionals Working to Fight Covid-19 in Public Hospitals

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***Abstract*** *— Objective: The research had as general objective to analyze the incidence of Burnout Syndrome in health professionals of two public hospitals that provide care to patients with Covid-19 in two realities in the Legal Amazon. Materials and Methods:Exploratory, descriptive study, with a cross-sectional design and a quantitative approach. The data collection instruments used in this study were: a) Maslach Burnout Inventory (MBI) Questionnaire and Questionnaire of sociodemographic, professional and psychosocial factors profile. The MBI is composed of three factors that are called Emotional Exhaustion EE, Depersonalization DE and Professional Achievement RP. The research subjects were 140 health professionals from two public hospitals. The research project complies with Resolution 466/12 of the National Health Council of Brazil, taking into account the ethical aspects of research in Brazil. Main results: Health professionals working to combat the Covid-19 pandemic in two public hospitals have high rates of Emotional Exhaustion (EE), Depersonalization (DE) and Low Professional Fulfillment (PR), indicative of high rates of burnout. Individual or associated psychosocial factors are conditioning factors and can directly determine the occurrence of Burnout Syndrome in health professionals, especially at this time of combating the Covid-19 pandemic. Conclusion:*

*Show the urgency of interventions aimed at these professionals, which aim to reduce levels of occupational stress, increase self-esteem, encourage self-care and build a healthy work environment.*

## I. INTRODUCTION

The Covid-19 pandemic has generated concern about the mental health of the entire society and, especially, of health professionals who are on the front lines in the fight against the pandemic [1]. According to Schmidt et al [2], in times of pandemic, physical health and combating the causative agent of the disease are the focus of attention of managers and health workers, however, the mental health of these professionals tends to be neglected. The Covid-19 pandemic brought an additional problem for the well-being of physicians, nurses, technicians and nursing assistants and all healthcare professionals. In times of greater pressure, such as the fight against the new coronavirus, these workers forget about their own health [1]. According to Rodrigues; Silva [3] the physical and mental well-being of these professionals is affected, leading to the emergence of disorders related to stress and anxiety such as Burnout Syndrome. According to Rodriguez et al [4], occupational stress appears in the field of health as a real problem among professionals due to the exhaustive characteristics of work. For Faro et al [5], the Burnout Syndrome intensifies in this context, as the excessive workload caused by the new coronavirus grows disorganized. Thus, work overload can cause psychological and social disturbances, and interfere in the quality of life of health professionals [6].

It is undeniable that, given the Covid-19 pandemic, a new scenario of doubts and uncertainties emerged, where it appears that health professionals are more likely to develop Burnout Syndrome, as they deal with intense emotions such as suffering, fear and death , making it more vulnerable to a high degree of stress, in addition to increasing physical and psychological strain. According to França and Rodrigues [7], occupational stress arises 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 do not have sufficient resources for their coping. The Ministry of Health of Brazil and the Pan American Health Organization in Brazil [8] recognize that one of the possible effects of chronic exposure to occupational stress is the triggering of Burnout Syndrome or professional exhaustion, a phenomenon that affects professionals who have intense contact with the users of its services, such as health and education professionals, police officers, social workers, among others. The potential effects of occupational stress on the physical and emotional well-being of health professionals has been the object of scientific research in recent years, as it is an important health problem [9]. For Vitorino et al [6], Burnout Syndrome is characterized by emotional exhaustion, depersonalization and decreased personal fulfillment, in response to chronic sources of stress.It is identified as a common phenomenon among many professionals, with a higher incidence in workers who have direct contact with people.

According to McCray et al [10] currently, Burnout is defined by a combination of three factors: emotional exhaustion (depletion of emotional energy due to excessive work demand), depersonalization (sense of emotional distance from patients or work) and low achievement personal (feeling of low self-esteem and low efficiency at work).Briefly Bernhardt et al [11] defines it as the prolonged response to chronic stress at work. Burnout Syndrome is a psychosocial phenomenon that arises as a response to chronic interpersonal stressors present at work [12]. The most used definition of what is Burnout Syndrome is Maslach's; Jackson and Leite [13] and Maslach; Jackson [14] referring to it as a multidimensional syndrome consisting of exhaustion.For these authors, Burnout Syndrome has been recognized as a condition experienced by professionals who carry out activities in which a high degree of contact with other people is involved, including health professionals, whose task involves intense and prolonged attention to people in situations of need or dependence [13].

For Moss et al [15], Burnout Syndrome affects the physical and emotional health of professionals, bringing worrying consequences at individual and organizational levels.. For Carlotto and Câmara [16], at the beginning of any evidence, there is a need to prevent its symptoms.According to Melo and Carlotto [17] and Moss et al [15], prevention strategies for Burnout Syndrome include carrying out individual and organizational interventions or, ideally, a combination of both. According to Silveira et al [18] motivation at work is the result of a series of interactions between individual effort, income obtained, organization and personal goals, while stress is an individual's physiological and behavioral response.

For Gómez-Gascón et al [19], the health professional, when faced with potentially stressful situations, events, people or goals, induces this reaction, which is essential for survival.West et al [20] confirm that depression, suicidal tendencies, poor quality of life, dissatisfaction

with work-life balance, and especially Burnout, have been reported in all medical specialties and in all health-related professions. What is also more serious, according to Cedfeldt et al [21], is that due to the high frequency of such occurrences, Burnout Syndrome causes a negative impact on the conduct of patients, as well as on their health safety.

According to Guido et al [22], studying the stress of health professionals in the hospital environment allows a better understanding of its causes, which helps to elucidate everyday issues related to mental health and frequently faced by these professionals.In the study "Burnout Syndrome in health professionals: updating on definitions, risk factors and prevention strategies", Perniciotti et al [9] confirm that the propensity of health professionals to Burnout Syndrome is well documented, especially those who work in complex and intense environments such as hospitals.The research by Perniciotti et al [9] makes reference to several studies.Corroborating their findings, the studies by Bartholomew et al [23]; Rotenstein et al [24], who identified Burnout Syndrome in physicians from different specialties (25 to 67%), Erschens et al [25]; IsHak et al [26]; Low et al [27]; Rodrigues et al [28]; Shanafelt; Bradley; Wipf and Back [29] who identified in resident physicians (7 to 76%) and Bridgeman; Bridgeman and Barone [30]; Woo; Ho; Tang; Tam [31]; Chemali et.al [32]; Koinis et al [33]; Moss; Good; Gozal; Kleinpell and Sessler [15], who identified Burnout Syndrome in nurses (10 to 70%).

To Zanata; Lucca [12] the clinical picture is varied and can include psychosomatic, psychological and behavioral symptoms among professionals, and produce negative consequences at the individual, professional, family and social levels. In the study by França et al [34] within the scope of health institutions, high rates of absenteeism due to illness stand out, and for Hyeda; Handar [35] attributes presenteeism with consequent commitment to the quality of service provided in institutions. According to Lautert [36]; Lorenz; Benatti; Sabino [37]; Carlotto [38]; Ferreira; Lucca [39] in general, studies on Burnout Syndrome in health institutions assess only one professional category, for example, nursing workers. Nogueira-Martins [40]; Ax [41]; Tucunduva et al [42] refer to studies with medical professionals or analyze health professionals without distinction of profession. In Zanatta's Literature Review study; Lucca [12] on the subject showed that in Brazil there is a lack of studies on the set of health professionals from the same institution, in order to obtain a characterization of mental illness in the context of work as a whole.

The research had as general objective to analyze the incidence of Burnout Syndrome in health professionals of two public hospitals that provide care to patients with Covid-19 in two realities in the Legal Amazon.

## II. MATERIALS AND METHODS

### 2.1 Study Type

Exploratory, descriptive study, with a cross-sectional design and a quantitative approach. It was developed in two public hospitals for the care of patients with Covid-19 located in the Brazilian Amazon. The criteria for choosing these hospitals was based on the peculiar characteristic of exclusive care for patients with Covid-19. Data collection was carried out over a 3-month period in 2021.

### 2.2 Data Collection Instruments

Questionnaires with closed questions and multiple choices were used as data collection instruments for this research, in addition to the MBI inventory. The data collection instruments used in this study were: a) Maslach Burnout Inventory (MBI) Questionnaire; b) Questionnaire on the profile of sociodemographic, professional and psychosocial factors.

The Maslach Burnout Questionnaire (MBI) is an inventory consisting of 22 items, where the individual responds to a seven-point Likert scale.After the initial orientation described by the inventory, alternatives are presented, ranging from the condition "never" (0), to the intensity "every day" (6), with which the individual will respond by marking an X in the intensity that best represents what is described in each item. The MBI is composed of three factors that are called Emotional Exhaustion EE (as measured by questions 1, 2, 3, 6, 8, 13, 14, 16 and 20) DE Depersonalization (questions 5, 10, 11, 15 and 22) and Professional Achievement RP (questions 4, 7, 9, 12, 17, 18, 19 and 21). Among all the instruments presented, the MBI is the most used to assess the Burnout Syndrome, regardless of the occupational characteristics of the sample and its origin.

The authors McCray et al [10]; Sanfuents [43]; Aldrees et al [44]; Shirom [45]; Ishak et al [46] confirm that the Maslach Burnout Inventory (MBI) is the most used instrument in the investigation of the disease, as well as in its quantification. About 90% of Burnout investigations were carried out through the MBI [44]. According to Aldrees et al [44]; Arrogant [47]; Ishak et al [46] this questionnaire consists of 22 items, distributed as follows: nine items related to emotional exhaustion, five to depersonalization, and eight to low personal fulfillment.Each marked item is rated on a Likert scale from zero to six (where zero means "never"; one is "a few

times a year"; two is "once a month"; three is "once a month"; a few times a month"; four points to "once a week"; five represents "a few times a week"; and finally six refers to "every day").

According to Ishak et al [46] Burnout is detected according to a cutoff score for each of the three categories: emotional exhaustion ≥27, depersonalization ≥10 and low personal fulfillment ≥33. According to Cialzeta [48] (2013); Aldrees et al [44]; Shirom [45]; walls; Sanabria-Ferrand [49]; Diaz Araya [50] among the three factors present in Burnout, emotional exhaustion was identified as the most prevalent (reaching 54%, according to Aldrees et al [44]), since it is the symptom that most represents the consequences that stress at work can cause for health professionals. And, according to Cialzeta [48]; Aldrees et al [44]; walls; Sanabria-Ferrand [49]; the second most prevalent item is depersonalization, followed by low personal fulfillment. These factors consist of three related dimensions, but independent of each other, which are: a) Emotional Exhaustion (EE) - it is the feeling of exhaustion, both physical and mental, the feeling of no longer having energy for absolutely nothing, of having arrived to the limit of possibilities, lack or lack of energy and feeling of exhaustion of resources. b) Depersonalization (DE) – The professional has not lost his personality, but it has undergone or is undergoing changes, leading him to a cold and impersonal contact with the users of his services (patients, clients, etc.), starting to have attitudes of cynicism and irony in relation to people, showing itself indifferent to what may happen to others; the professional starts to treat patients and clients, colleagues and the organization as objects. c) Professional Achievement (PR) – feeling of dissatisfaction with the work activities they have been performing and with their emotional development, feeling of insufficiency, low self-esteem, professional failure and lack of motivation. The professional reveals low efficiency at work, sometimes feels the desire to leave the job, characterizing a negative self-assessment.

**MASLACH BURNOUT INVENTORY QUESTIONNAIRE (MBI)**

0 – Never; 1- Once a year or less; 3 – A few times a month; 4 – Once a week; 5 – A few times a week; 6 – Every day.

| **Nº** | **PLEASE READ THE FOLLOWING AFFIRMATIONS CAREFULLY, SCORING AS SINCERELY AS POSSIBLE ACCORDING TO THE INTENSITY DESCRIBED:** | **NEVER** | **ONCE A YEAR OR LESS** | **ONCE A MONTH OR LESS** | **SOMETIMES A MONTH** | **ONCE A WEEK** | **SOMETIMES A WEEK** | **EVERY DAY** |
|---|---|---|---|---|---|---|---|---|
| 1 | I feel emotionally drained from my job. | | | | | | | |
| 2 | I feel tired at the end of the workday. | | | | | | | |
| 3 | When I get up in the morning and go to another workday I feel tired. | | | | | | | |
| 4 | I can easily understand how people feel. | | | | | | | |
| 5 | I think I treat some people as if they were impersonal objects. | | | | | | | |
| 6 | Working with people all day takes a lot of effort. | | | | | | | |
| 7 | I deal effectively with people's problems. | | | | | | | |
| 8 | My work leaves me exhausted. | | | | | | | |
| 9 | I feel that through my work I positively influence the lives of others. | | | | | | | |
| 10 | I have become more insensitive to people since I have been doing this job. | | | | | | | |
| 11 | I am concerned that this job is hardening me emotionally. | | | | | | | |
| 12 | I feel very vital. | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 13 | I feel frustrated in my work. | | | | | | | |
| 14 | I think I'm working too hard | | | | | | | |
| 15 | I don't really care what happens to the people I serve. | | | | | | | |
| 16 | Working directly with people causes me stress. | | | | | | | |
| 17 | I can easily create a relaxed atmosphere for people. | | | | | | | |
| 18 | I feel stimulated after work in contact with people. | | | | | | | |
| 19 | I have achieved many accomplishments in my profession. | | | | | | | |
| 20 | I feel at the limit of my possibilities. | | | | | | | |
| 21 | I feel that I know how to properly handle emotional problems in my work. | | | | | | | |
| 22 | I feel people blame me in some way for their problems. | | | | | | | |

b) Questionnaire of sociodemographic, professional and psychosocial factors profile. It is characterized by a questionnaire with multiple choice questions, divided into questions of sociodemographic data (age, gender, marital status and number of children) and 08 questions of professional data (degree, area of expertise, work shift, length of experience professional).Psychosocial factors have 11 questions about bad behavior of patients, overload of activities, high number of patients per work shift, need for professional updating, execution of bureaucratic activities, multiplicity of roles to play, expectations of family members, lack of resources for materials for work, high number of daily activities, lack of support from coordination and colleagues, little participation in institutional decisions, to be answered according to the intensity that occur, being 1 (always), 2 (often), 3 (sometimes) , 4 (rarely) and 5 (never).

**Sociodemographic, Professional and Psychosocial Factors Profile Questionnaire**

Mark with an X the answer corresponding to the indicative number applicable to you.

1) Sociodemographic Data: 1) Age: a ( ) up to 25 years old; b ( ) from 26 to 30 years old; c ( ) from 31 to 35 years old; d ( ) from 36 to 45 years old; and ( ) from 46 to 55 years old; f ( ) over 55 years old. 2) Gender: a ( ) Male b ( ) Female. 3) Marital Status: a ( ) Single; b ( ) Married or cohabiting; c ( ) Separated, separated, divorced or widowed. 4/ Number of children: a ( ) None; b ( ) 1 child; c ( ) 2 children; d ( ) 3 children; and ( ) 4 children; f ( ) 5 or more children.

2) Professional data: 1) Position: a ( ) graduation; b ( ) specialization / residency; c ( ) title of master; d ( ) doctorate; and ( ) postdoctoral. 2) Work shift: a ( ) morning; good night; c ( ) late; d( ) all; and ( ) in service. 3) Length of professional experience: a ( ) less than one year; b ( ) 1 to 5 years; c () 6 to 10 years; d ( ) 11 to 15 years; and ( ) 16 years or older. 4) Length of experience with Covid-19 treatment: a ( ) less than 6 months; b ( ) from 6 months to less than one year; c( ) one year; d () more than a year. 5) Number of patients and/or care provided daily: a ( ) less than 10; b ( ) less than 20; c ( ) 20 to 30; d ( ) 30 to 40; f ( ) more than 40. 6. Work exclusively at the hospital: a ( ) yes; b () no.

3) Psychosocial Factors:Analyze and mark with an X, the occurrence of the described phenomena, according to the scale proposed below: Always (1); Often (2); sometimes (3); Rarely (4); Never (5).

The psychosocial factors adopted in the research are: bad behavior of patients or family members; activity overload; high number of patients per shift; need for professional updating; execution of bureaucratic activities; multiplicity of roles to play; family members' expectations; lack of material resources for work; high number of daily activities; lack of support from coordination and colleagues, and little participation in institutional decisions.

**2.3 Sampling Number**

The research subjects were one hundred and forty (140) health professionals from two public hospitals, randomly selected, as no area of education, title, gender, length of experience in the profession, among other variables, was

prioritized. The freedom of professionals to respond to the survey voluntarily and those who are exclusively dedicated to the treatment of Covid-19 were prioritized. Considering the chronicity and intensity of stress for the manifestation of Burnout Syndrome, the study population consisted of physicians, nurses, technicians and nursing assistants, physiotherapists, biomedical, speech therapists, pedagogical therapists, ambulance drivers and all other active professionals in combating Covid-10 in times of pandemic.

### 2.4 Inclusion and exclusion criteria and ethical aspects

All health professionals working in the fight against Covid-19 and who signed the free and informed consent form and returned the completed questionnaires were included.The exclusion criterion was not returning the informed consent form and not filling out the questionnaires. The research project complies with Resolution 466/12 of the National Health Council of Brazil, taking into account the ethical aspects of research in Brazil.

## III. RESULTS AND DISCUSSION

The results found in the applied MBI questionnaire were calculated using the Likert scale, ranging from 0 to 6. After the sum of the items, a total value for Emotional Exhaustion (EE), Depersonalization (DE) and Professional Fulfillment (PR) was obtained, with each value obtained being divided by the total number of health professionals, obtaining the average of each factor.

It is observed in Table 1 that the two Hospitals had high rates of Emotional Exhaustion (EE), Depersonalization (DE) and low Professional Fulfillment (PR). They are indicative of high rates of Burnout incidence. All indices above the averages recommended by international and national literature: Emotional Exhaustion (EE) ≥27, Depersonalization (DE) ≥10 and low Professional Achievement (PR) ≥33.

The means found are higher than those found and recommended by the GEPEB - Study and Research Group on Stress and Burnout Syndrome. Group formed by Brazilian and Spanish researchers, who over the years have been developing studies, courses and investigations on processes of stress, burnout, quality of life, resilience and engagement in various professional groups (teachers, psychologists, doctors, nurses, etc.) in order to understand and develop health at work.The findings in the current research are also superior to those found and recommended by Manual Spain and the American Manual.

The Emotional Exhaustion (EE) dimension showed high rates, which may be causing symptoms of exhaustion and frustration. The Depersonalization (DE) dimension also presented a high index that can manifest itself through negative attitudes such as derogatory treatment, cold and distant attitudes and disconnection from the problems of patients and clients and co-workers. The professional's performance is directly influenced by the high rates of Depersonalization found in the research, which express the interpersonal context where the subject's work is developed, and the decrease in personal achievements, represents the self-assessment that the individual performs of his/her occupational and personal performance. Regarding the Professional Achievement (PR) dimension, it can be observed that the health professionals of the two Hospitals had slightly higher PR rates compared to those found in the international and national literature, by the GEPEB group, by the Manual España and Manual Americano.

For Maslach, Schaufeli and Leiter [51] emotional exhaustion is characterized by feelings of being overwhelmed and exhausted of their physical and emotional resources, leading to depletion of energy to invest in situations that arise at work. This dimension according to Maslach and Leiter [52]; Carlotto and Câmara [16] is considered a central quality and the most obvious manifestation of the syndrome, being associated with feelings of frustration in view of the professionals' perception that they are unable to understand the energy to care for patients as they did before [52]; [16]. Maslach, Schaufeli and Leiter [51] explain that as emotional exhaustion worsens, depersonalization or cynicism can occur, which are characterized by a distant or indifferent attitude of the individual towards work, colleagues and patients. These authors argue that depersonalization is considered a response to emotional exhaustion, constituting an individual's coping strategy in the face of chronic stress.

Carlotto and Câmara [16] explain that the gradual loss of empathy and indifference towards work culminates in affective insensitivity and excessive distance from the public that should receive their services, compromising the ability of health professionals to provide quality care to their patients. According to Moss et al [15], this dimension can also be expressed by unprofessional comments directed at co-workers, by blaming patients for their problems or by the inability to express empathy/regret when a patient dies. While the dimension of reduction in personal fulfillment refers to the subject's tendency to negatively assess himself/herself in relation to their skills and productivity at work, which can lead to reduced self-esteem [30]; [15];[51]. In this dimension, the individual

experiences a decline in the feeling of competence and success, as well as in their ability to interact with others [16].

Table 1 shows the values obtained for each public hospital and the general average obtained for all two hospitals (item ALL).

*Table 1: Presentation and Comparison of the mean values of EE, DE and PR by Hospital Unit*

| **VARIABLES** | **H1*** | **H2**** | **ALL** |
|---|---|---|---|
| | N=50 | N= 90 | N= 140 |
| EE | 34,0 | 39,0 | 36,5 |
| DE | 16,0 | 12,0 | 14,0 |
| RP | 36,0 | 34,0 | 35,0 |

H1* Hospital 1 H1** Hospital 2

According to Perniciotti et al [9] the consequences of Burnout Syndrome in health professionals are serious, as moderate and high levels of Burnout Syndrome are associated with: 1) individual disorders, such as post-traumatic stress disorder. traumatic (PTSD), alcohol abuse, psychosomatic complaints, drug use, depression and suicidal ideation; 2) behavioral changes related to job dissatisfaction, lack of organizational commitment and intention to leave work; 3) problems at work, such as absenteeism, worse results in patient safety measures and errors in professional practice. These statements about the consequences of Burnout Syndrome in health professionals are corroborated by important authors such as Moss et al [15]; Dyrbye et al [53]; Lacovides, Fountoulakis, Kaprinis and Kaprinis [54]; Lazarescu et al [55]; Maslach and Leiter [56]; and Moss et al [15].

According to Carlotto and Câmara [16]; Lacovides et al [54]; Moss et al [15]) the consequences of Burnout Syndrome culminate in a decrease in the quality of life of health professionals and in the efficiency at work, negatively impacting patient care. For Waterman et al [57], the occurrence of errors in professional practice also causes harm to the professional, as it is related to loss of confidence, sleep difficulties, reduced job satisfaction, increased levels of occupational stress and damage to the professional image. For Moss et al [15], the abandonment of professional practice increases the turnover of professionals in hospitals, resulting in high organizational costs for the replacement of employees.

Perniciotti et al [9] state that no national studies were identified that point out the organizational expenses attributed to the Burnout Syndrome in health professionals. According to Dewa, Jacobs, Thanh and Loong [58] a study carried out in Canada estimates that the "total cost of Burnout Syndrome" exceeds the value of 200 million dollars due to spending on early retirement and reduced hours worked for the medical category. According to Hamidi et al [59] a study carried out in the United States shows that 28% of the physicians evaluated with Burnout Syndrome showed an intention to leave their work and after two years 13% actually did so, resulting in costs ranging between 15 and 55 million dollars .

About which professionals are more affected by Burnout Syndrome, Borges et al [1] in their study “Risck Factors For Burnout Sydrome In Health Professionals During The Covid-19 Pandemic, show that nurses, nursing assistants and technicians are more likely to develop occupational stress. In the current scenario, this problem is more likely to be acquired by professionals, since the demand for health services has grown exorbitantly and the global health infrastructure was not prepared for such demand, in addition to the fear of the collapse of the health system. For Borges et al [1], overwork, lack of resources and professionals in many places, the high number of deaths and cases of infected people and the fear of becoming infected are realities in hospital environments today. Also according to Borges et al [1] in their research, work overload, stress, physical exhaustion, depression and compromised social interaction are the main risk factors for the development of Burnout Syndrome in health professionals, as well as suffering psychological, caused by insomnia, anxiety, depression, sadness, isolation from family and friends during the pandemic. Fear of contracting the disease and family members' infection are also major causes of psychological stress. It is noteworthy that, in the specific analysis of sociodemographic data, they indicate that women suffered a greater psychological impact from the outbreak in the pandemic. The hospital environment generates more psychological problems for health professionals. The causes are related to the demand for work in an emergency situation caused by the Covid-19 pandemic. Thus, more attention should be directed to health professionals who are on the front line against the disease, as the importance of these professionals is unquestionable for the social good [1].

Borges et al [1] in their review study found the main stress factors for health professionals in combating Covid-19. Among these factors, the following stand out: Exhaustive workload; Increased number of confirmed and suspected cases; Close contact with infected patients; Distance from family and friends; Lack of personal protective equipment; Risk of contracting the virus and concern about contagion from their family members; Risk of being infected, getting sick or dying, in addition to the possibility and fear of infecting other people; Exposure to large-scale deaths and frustration over the loss of their

patients' lives; The stress and pressure of dealing with your job, plus the risk of getting sick; Aggression itself by people who seek care and cannot be accepted due to limited resources; Limited knowledge of virus prevention and control; Inappropriate feelings of support; Lack of specific medications, and media coverage.

The most prevalent emotional symptoms presented by health professionals in combating Covid-19 are also corroborated by the review research by Borges et al [1]. Among them, depression, fear, lack of energy, insomnia, stress associated with difficulty falling asleep and waking up in the morning stand out, anxiety, compromised social relationships, anguish, insecurity, irritability, sadness and apprehension.

For Barbosa and Beresin [60]; Benevides-Pereira [61] The symptomatic process of Burnout Syndrome can be grouped into four areas: psychosomatic, behavioral, emotional and defensive: Psychosomatic refers to the onset of headaches, muscle tension, gastrointestinal disorders, weight loss, insomnia, asthma and high blood pressure; Behavioral factors are identified as absenteeism from work, violent behavior, impotence regarding interactivity, drug use and dependence, as well as problems in family relationships; Emotional ones are marked by affective isolation, impatience, irritability, concentration and memorization difficulties; And, finally, in relation to defensives, there is the denial of one's emotions, detachment from people and selective attention, with the sole purpose of warding off a negative experience. For Benevides-Pereira [61] the person who presents the Burnout Syndrome does not necessarily have all these symptoms. The degree, type and number of manifestations experienced will depend on the configuration of individual factors (such as genetic predisposition, socio-educational experiences), environmental factors (workplaces or cities with a higher incidence of pollution, for example) and the stage at which the person is in the process of developing the syndrome.

McCornnell apud Guimarães and Cardoso [62], elaborates a scheme about the signs and symptoms in the individual with Burnout Syndrome, as follows: a) Physical signs and symptoms: similar to those of occupational stress, such as fatigue, feeling of intense exhaustion, indifference or coldness, feeling of low performance, headaches, gastrointestinal disturbances, sleep disorders and breathing difficulties; b) Behavior symptoms: serious changes in behavior generally affecting colleagues, patients, patients' relatives and even their own relatives; c) Psychological symptoms: appearance of changes, such as working more intensely, feeling of impotence in the face of occupational life situations, feeling of confusion and uselessness, irritability, little attention to detail, increased absenteeism, feeling of exaggerated responsibility or out of context, negative attitude, rigidity and low level of enthusiasm.

In the sociodemographic questionnaire, the main factors, as shown in Table 2, were the predominance of females (85%), age from 31 to 45 years (45%), marital status, married (49%) and single (41 %) and professionals with children (75%), with a predominance of one to two children (50%). Comparing these findings with studies in Brazil, we found very similar results regarding the predominance of females in the health area, the age range being lower than in other studies, which can be justified by the emergency entry of newly graduated professionals in the pandemic combat service.

*Table 2: Sociodemographic Data: gender, age, marital status and number of children (N = 140)*

| **VARIABLES** | Fr% |
|---|---|
| **Gender** | |
| Male | 15% |
| Feminine | 85% |
| **age range** | |
| Up to 25 years old | 10% |
| from 26 to 30 years old | 15% |
| From 31 to 35 years old | 25% |
| From 36 to 45 years old | 20% |
| From 46 to 55 years old | 20% |
| over 55 years old | 10% |
| **Marital status** | |
| Not married | 41% |
| Married | 49% |
| Separated/Separated/Divorced/Widowed | 10% |
| **Number of children** | |
| None | 25% |
| 1 son | 25% |
| 2 children | 25% |
| 3 sons | 15% |
| 4 sons | 5% |
| 5 or more children | 5% |

Fr% = Relative frequency

According to studies by Benevides-Pereira [61]; Martinez [63]; Russell and Velzen [64], there is no single agreement on the possibility of a higher incidence of Burnout with regard to sex. Women have had higher scores in Emotional Exhaustion and men in Depersonalization. This fact can be analyzed by the social and cultural characteristics of men, who are not encouraged to show their emotions and after high levels of stress tend to react inappropriately, through Depersonalization. Predominates health professionals between 36 and 45 years old who, due to their age, should already have a greater professional identity. There are scientific reports that professionals under the age of 40 are at higher risk of incidence, as young professionals need to learn to deal with work issues. According to Benevides-Pereira [61], it is important to note that Burnout appears at the beginning of a professional's career, being externalized later with work changes. Sarriera [65] says that Burnout is a state of chronic stress and to reach the state of a syndrome, the body issues several alerts and seeks to combat or compensate, when it is defeated, stress becomes chronic, as a syndrome, which can lead to physical, psychosomatic, psychic or social illnesses. According to Benevides-Pereira [61] and Martínez [63], a stable relationship would be among the lowest incidence of Burnout, as single people or people with unstable relationships have greater emotional exhaustion, low professional achievement and greater depersonalization. There is no consensus on the health professional's marital status in relation to Burnout Syndrome, that is, the predominance of married marital status does not confirm in other studies, which indicate single and young people as a predisposing factor to the syndrome. The number of children also brings controversial results, as this can be a factor that balances the professional, enabling better combat strategies. However, according to Martínez [63], the existence of children makes people who have a stable relationship may be more resistant to Burnout Syndrome, as the general tendency found in parents is to be more mature, stable and a good relationship with the family and children brings greater capacity to face personal problems and emotional conflicts, and to be more secure with family support.

As for the professional variables evaluated in this study, the main factors described in Table 3 were obtained, with a predominance of professionals with primary and secondary education with 35% (nursing assistants), professional secondary level with 25% (nursing technician) and graduates with 15% (nurses and doctors without specialization) and professionals with specialization (15%). Professionals working in two shifts predominate (40%), with professional experience from 6 years to 15 years with (50%), with emphasis on professionals with less than 6 months of experience (mainly newly graduated doctors), the professionals with little experience in Covid-19 treatment (50% with less than 6 months of experience) and with a predominance of patient care or more than 40 calls for daily care (75%), and 90% do not work with exclusivity in the Hospital Unit, that is, these professionals have a second or third job.

*Table 3: Professional Data (N = 140)*

| **VARIABLES** | Fr% |
|---|---|
| **Education** | |
| Elementary or Middle Level | 35% |
| Professional Medium Level | 25% |
| University graduate | 15% |
| Specialization | 16% |
| Master's degree | 5% |
| Doctorate degree | 2% |
| **Work shift** | |
| Morning | 10% |
| Evening | 10% |
| Night | 20% |
| morning/evening | 40% |
| on-call regime | 20% |
| **Professional Experience Time** | |
| Less than 1 year | 20% |
| 1 to 5 years | 15% |
| 6 to 10 years | 25% |
| 11 to 15 years old | 25% |
| 16 years or more | 15% |
| **Time of Experience with Covid-19 Treatment** | |
| Less than 6 months | 50% |
| From 6 months to 1 year | 30% |
| More than 1 year | 20% |
| **Number of Patients or Calls for Daily Service** | |
| Less than 10 | 0% |
| Less than 20 | 5% |
| from 20 to 30 | 20% |
| more than 40 | 75% |
| **Do you work exclusively at the Hospital?** | |
| Yea | 10% |

| | |
|---|---|
| No | 90% |

Fr% = Relative frequency

According to studies by Benevides-Pereira [61], people with higher education are more predisposed to burnout, with a greater professional perspective or a higher level of responsibility, but professional achievement may be related to the status and recognition of the high level of the profession. Excessive work entails several inconveniences and leaving them susceptible to Burnout. The longer the working time and the greater the workload dedicated to the institution, the more prone to Burnout Syndrome. The length of professional experience is not in agreement with other studies, and some studies describe Burnout as a process of wear that increases over time, while others have a higher incidence in those who enter the labor market, due to little experience and not have even developed adequate strategies to face professional problems. As for the length of experience, Burnout starts to reveal itself from the first year of work in excessive and overwhelming conditions. Although the professional experience of those surveyed is not a factor that triggers the Burnout syndrome, when observed together with the short time working at the institution, it may indicate possible predispositions to the onset of Burnout. According to Benevides-Pereira [61], work overload has been one of the most cited variables as predisposing to Burnout, as it is related both to the quantity and the excessive quality of demands, which exceed the performance capacity. The closer the worker's relationship with the person he or she must professionally assist, the greater the probability of triggering the Burnout process. Among the professionals surveyed, those who do not work exclusively in a single institution (90%) stand out, a factor that can generate a constant adaptive need to adapt to each new work environment. According to Silva and Fogaça [66], the professional having other jobs implies more efforts, more planning and more preparation for different activities, increasing the feeling of mental burden and decreasing the possibility of obtaining pleasure.

According to the data obtained in the research on psychosocial factors, Table 4 can be seen, where the predominant classification and relative frequency of these factors are specified. Psychosocial factors affect professionals from different areas and this reality has generated great interest and concern not only from the international scientific community, but also from government groups, given the seriousness of the consequences, both individual and organizational, presented by Burnout Syndrome, especially as an interference factor in the interpersonal relationships of the health professional.

*Table 4: Predominant Classification and Relative Frequency of Psychosocial Factors.*

| Psychosocial Factors | Classification | Fr% |
|---|---|---|
| Misbehavior of patients or family members | Sometimes | 45,0% |
| Activity overload | Often | 40,0% |
| High number of patients per shift | Always | 55,0% |
| Need for professional updating | Always | 70,0% |
| Execution of bureaucratic activities | Rarely | 30,0% |
| Multiplicity of roles to play | Often | 40,0% |
| family members' expectations | Always | 80,0% |
| Lack of material resources for work | Sometimes | 35,0% |
| High number of daily activities | Always | 35,0% |
| Lack of support from coordination and colleagues | Rarely | 30,0% |
| Little participation in institutional decisions | Sometimes | 30,0% |

Caption: Always (1); Often (2); sometimes (3); Rarely (4); Never (5).

The factor bad behavior of patients or family members was referred to as sometimes (45.0%), being a factor that in this classification may represent a trigger of Burnout. The activity overload factor was referred to as Frequently (40.0%), reinforcing what many studies say that this is a triggering topic for Burnout Syndrome. In several explanatory models, it is the emotional exhaustion factor that is triggered primarily in the Burnout Syndrome process, thus, the physical and mental fatigue resulting from professional activity, the energy depletion resulting from the overload of activities, can be considered as contributing factors for emotional exhaustion and consequently Burnout [67].

The high number of patients per shift was classified as Always (55.0%), a factor that is associated with the high number of daily activities and the high number of patients assisted by the professional and the high number of calls for assistance can trigger Burnout. The factor needing professional updating was represented as Always 70.0%. According to studies by Benevides-Pereira [61], people with high professional motivation are more prone to burnout. The factor execution of bureaucratic activities presented the classification Rarely (30.0%). The multiplicity of roles to play factor was rated Frequently

(40.0%). This factor can contribute to the presence of Burnout Syndrome. The factor expectation of family members was rated Always (80.0%), representing that family support can influence the Burnout indices.

The factor lack of material resources for the work, presented classification Sometimes (35.0%), and the factor little participation in institutional decisions, Sometimes (30.0%) did not present indices that can directly collaborate in the occurrence of the Syndrome of Burnout. In the research carried out, the factor lack of support from the coordination and colleagues presented a classification Rarely (30.0%), which does not seem to contribute to the occurrence of Burnout.

According to Tamayo and Tróccoli [67], the perception of organizational support depends on the same attribution process that people use to define the commitment of others in social relationships. This perception is influenced by the frequency, intensity and sincerity of expressions of praise and approval and by aspects related to payment, job category, job enrichment and influence on the organization's policies. In the understanding of Vasques-Menezes and Soratto [68], social support refers to the social network naturally established between co-workers, neighbors and acquaintances, and can be understood as the help to solve problems, which can be in the sense of allow the discharge of an affective charge. According to Russell and Venzel [64] social support has been identified as the resource that enables the individual to be able to withstand stress. According to current hypotheses, individuals who are related to social support are able to trust others to help them in stressful situations.

## IV. CONCLUSION

The present study concludes that health professionals working to combat the Covid-19 pandemic in two public hospitals have high rates of Emotional Exhaustion (EE), Depersonalization (DE) and low Professional Fulfillment (PR). The results found in the study are indicative of high rates of Burnout incidence. All indices are above the averages recommended by international and national literature. The means found are higher than those found and recommended by GEPEB - Study and Research Group on Stress and Burnout Syndrome. This group is formed by Brazilian and Spanish researchers, who over the years have been developing studies, courses and investigations on processes of stress, burnout, quality of life, resilience and engagement in various professional groups (teachers, psychologists, doctors, nurses, etc.). ) in order to understand and develop health at work. The findings are also superior to those found and recommended by Manual Spain and the American Manual.

In the study, there was a predominance of females (85%), aged from 31 to 45 years (45%), married (49%) and single (41%) and professionals who have children (75%), predominantly number of one to two children (50%). Comparing these findings with studies in Brazil, we found very similar results regarding the predominance of females in the health area, the age range being lower than in other studies, which can be justified by the emergency entry of newly graduated professionals in the pandemic combat service. There was a predominance of professionals with primary and secondary education with 35% (nursing assistants), professional secondary level with 25% (nursing technician) and graduates with 15% (nurses and physicians without specialization), professionals working in two shifts (40% ), with professional experience from 6 years to 15 years with (50%) and mainly newly graduated physicians, professionals with little experience in the treatment of Covid-19 (50% with less than 6 months of experience and predominantly of patient care or more than 40 calls for daily care (75%), 90% with another job. Individual or associated psychosocial factors are conditioning factors and can directly determine the occurrence of Burnot's Syndrome in health professionals, especially at this time of combating the Covid-19 pandemic.

The scenario found requires a strategic planning policy for health promotion and prevention for these professionals, both by hospitals and by the State Health Department. We hope that this article will contribute to update the available literature on Burnout Syndrome and facilitate the understanding of the nuances that involve its triggering in health professionals, highlighting the importance of evaluating preventive interventions. The urgent need for interventions aimed at these professionals is evident, aimed at reducing levels of occupational stress, increasing self-esteem, encouraging self-care and building a healthy work environment.

## REFERENCES

[1] Borges FES, Aragão DFB, Borges FES, Borges FESB, Sousa ASJS, Machado ALG. Fatores de Risco para a Síndrome de Burnout em Profissionais da Saúde durante a pandemia de Covid-19. Revista Enfermagem Atual. v. 95, nº 33, 2021.

[2] Schmidt B, Crepaldi MA, Bolze DAS, Silva LN,DemenechLM.Impactosna SaúdeMentale Intervenções Psicológicas Dianteda Pandemia do Novo Coronavírus (COVID-19). Estud. psicol.2020;37(e200063). Disponívelem: https://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-166X2020000100501.

[3] Rodrigues NH, SilvaLGA. Gestãoda pandemia Coronavírusemum hospital: relatodeexperiênciaprofissional.J. Nurs. health. 2020; 10:

(n.esp.): e20104004. https://periodicos.ufpel.edu.br/ojs2/index.php/enfermagem/article/view/18530/11238

[4] Rodriguez EOL, Oliveira JKA, Neto DL, GoisCFL, Campos MPA, Mattos MCT. Estresse ocupacionalem profissionaisdeenfermagem. Revenferm UERJ.2018;26:e19404. Disponívelem: http://dx.doi.org/10.12957/reuerj.2020.19404

[5] Faro A, Bahiano MAB, Nakano TC, ReisC, Silva BFP, Vitti LS. COVID-19 e saúdemental:Aemergênciadocuidado.Estud.Psicol.2020;37 :e200074.Disponívelem:https://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-166X2020000100507

[6] Vitorino MF,Rodrigues MSD, Evangelista CB,Guimarães KSL,Batista JBV,Fonseca AGSF,Araújo ALB,Melo FMAB.Síndromedeburnout:conhecimentodaequipede enfermagemneonatal.Revenferm UFPE online. 2020;12(9):2308-2314.

[7] França ACL, Rodrigues AL. (1997). Stress e trabalho: guia prático com abordagem psicossomática. São Paulo: Atlas.

[8] Ministério da Saúde do Brasil & Organização Pan-Americana da Saúde no Brasil. (2001). Doenças relacionadas ao trabalho: manual de procedimentos para os serviços de saúde. In Série A Normas e Manuais Técnicos (Vol. 114). Ministério da Saúde do Brasil.

[9] Perniciotti P, Serrano Júnior CV, Guarita RV, Morales RJ, Romano BW. Síndrome de Burnout nos profissionais de saúde: atualização sobre definições, fatores de risco e estratégias de prevenção. Rev. SBPH vol.23 no.1 São Paulo jan./jun. 2020.

[10] McCray LW, Cronholm PF, Bogner HR, Gallo JJ, Neill RA. Resident physician burnout: is there hope? Fam Med. 2008;40(9):626-32.

[11] Bernhardt BA, Rushton CH, Carrese J, Pyeritz RE, Kolodner K, Geller G. Distress and burnout among genetic service providers. Genet Med. 2009;11(7):527-35.

[12] Zanatta AB, Lucca SR. Prevalência da síndrome de burnout em profissionais dasaúdedeumhospitaloncohematológicoinfantil. RevEscEnfermUSP·2015;49(2):253-260.

[13] Maslach C,Jackson SE,Leiter MP.Maslach Burnoutinventory.3rded.PaloAlto(CA):Consulting Psychologists;1996.

[14] MaslachC,JacksonSE.The measurement of experienced burnout.JOccupBehav.1981;2(2):99-113.

[15] Moss M, Good VS, Gozal D, Kleinpell R, Sessler CN. (2016). An official critical care societies collaborative statement: burnout syndrome in critical care healthcare professionals: a call for action. American Journal of Critical Care, 44(7), 1414-1421.

[16] Carlotto MS, Câmara SG. (2008). Análise da produção científica sobre a Síndrome de Burnout no Brasil. Psico - PUCRS, 39(2), 152-158.

[17] Melo LP, Carlotto MS. (2017). Programa de prevenção para manejo de estresse e Síndrome de Burnout para bombeiros: Relato de experiência de uma intervenção. Estudos de Psicologia (Natal), 22(1), 99-108.

[18] Silveira ALP, Colleta TCD, Ono HRB, Woitas LR, Soares SH, Andrade VLA, Araújo LA. (2016). Síndrome de Burnout: consequências e implicações de uma realidade cada vez mais prevalente na vida dos profissionais de saúde. Revista Brasileira de Medicina do Trabalho,14(3), 275-84.

[19] Gómez-Gascón T, Martín-Fernández J, Gálvez-Herrer M, Tapias-Merino E, Beamud-Lagos M, Mingote-Adán JC, et al. Effectiveness of an intervention for prevention and treatment of burnout in primary health care professionals. BMC Fam Pract. 2013;14:173.

[20] West CP, Halvorsen AJ, Swenson SL, McDonald FS. Burnout and distress among internal medicine program directors: results of a national survey. J Gen Intern Med. 2013;28(8):1056-63.

[21] Cedfeldt AS, Bower EA, English C, Grady-Weliky TA, Girard DE, Choi D. Personal time off and residents' career satisfaction, attitudes and emotions. Med Educ. 2010;44(10):977-84.

[22] GuidoLA,LinchGFC,Pitthan LO, Umann J.Stress,coping and health conditions of hospitalnurses. Rev Esc EnfermUSP[Internet].2011

[23] Bartholomew, A. J., Houk, A. K., Pulcrano, M., Shara, N. M., Kwagyan, J., Jackson, P. G., & Sosin, M. (2018). Meta-Analysis of Surgeon Burnout Syndrome and Specialty Differences. Journal of Surgical Education, 75(5), 1256-1263.

[24] Rotenstein LS, Torre M, Ramos MA, Rosales RC, Guille C, Sen S, Mata DA. (2018). Prevalence of Burnout Among Physicians: A Systematic Review. Journal of the American Medical Association, 320(11),1131-1150.

[25] Erschens R, Keifenheim KE, Herrmann-Werner A, Loda T, Schwille-Kiuntke J, Bugaj TJ, Nikendei C, Huhn D, Zipfel S, Junne F. (2019). Professional burnout among medical students: Systematic literature review and meta-analysis. Medical Teacher, 41(2), 172-183.

[26] IsHak WW, Lederer S, Mandili C, Nikravesh R, Seligman L, Vasa M, Ogunyemi D, Bernstein CA. (2009). Burnout During Residency Training: A Literature Review. Journal of Graduate Medical Education, 1(2), 236-242.

[27] Low ZX, Yeo KA, Sharma VK, Leung GK, McIntyre RS, Guerrero A, Lu B, Lam CCSF, Tran BX, Nguyen LH, Ho CS, Tam WW, Ho RC. (2019). Prevalence of burnout in medical and surgical residents: A meta-analysis. International Journal of Environmental Research and Public Health, 16(9), 1-22.

[28] Rodrigues H, Cobucci R, Oliveira A, Cabral JV, Medeiros L, Gurgel K, Souza T, Gonçalves AK. (2018). Burnout syndrome among medical residents: A systematic review and meta-analysis. PLoS ONE, 13(11), 1-17.

[29] Shanafelt TD, Bradley KA, Wipf JE, Back AL. (2002).Burnout and Self-Reported Patient Care in an

Internal Medicine Residency Program. Annals of Internal Medicine, 136(5), 358-367.

[30] Bridgeman PJ, Bridgeman MB, Barone J. (2018). Burnout syndrome among healthcare professionals. American Journal of Health-System Pharmacy, 75(3), 147-152.

[31] Woo T, Ho R, Tang A, Tam W. (2020). Global prevalence of burnout symptoms among nurses: A systematic review and meta-analysis. Journal of psychiatric research, 123, 9-20.

[32] Chemali Z, Ezzeddine FL, Gelaye B, Dossett ML, Salameh J, Bizri M, Dubale B, Fricchione G. (2019). Burnout among healthcare providers in the complex environment of the Middle East: a systematic review. BMC Public Health, 19(1),1337.

[33] Koinis A, Giannou V, Drantaki V, Angelaina S, Stratou E, Saridi M. (2015). The impact of healthcare workers job environment on their mental-emotional health. Coping strategies: the case of a local general hospital. Health Psychology Research, 3:1984.

[34] França FM, Ferrari R, Ferrari DC, Alves ED. Burnout and laboraspectsin thenursingteamsat two medium-sizedhospitals.RevLatinoAm Enfermagem 2012; 20(5):961-70.

[35] HyedaA,HandarZ.AvaliaçãodaprodutividadenasíndromedeBurnout.RevBrasMedTrab.2011;9(2):78-84.

[36] LautertL.Odesgasteprofissional:estudoempíricocomenfermeiras quetrabalhamemhospitais. Rev Gaúcha Enferm.1997;18(2):133-44.

[37] Lorenz VR, Benatti MCC, Sabino MO.Burnoutand stressamongnursesina university tertiary hospital.RevLatino Am Enfermagem. 2010;18(6):1084-91.

[38] Carlotto MS. Oimpacto devariáveissociodemo gráficaselaboraisnasíndromede Burnoutemtécnicosdeenfermagem. Rev SBPH.2011;14(1):165-85.

[39] Ferreira NN, Lucca SR. Síndromedeburnoutem técnicosdeenfermagemdeum Hospital Públicodo Estadode São Paulo. Rev Bras Epidemiol.2015;18(1):68-79.

[40] Nogueira-MartinsLA.Saúdementaldos profissionaisdesaúde. Rev Bras Med Trab.2003;1(1):56-68.

[41] MachadoMH.OsmédicosnoBrasil,oretratodeumarealidade.Riode Janeiro:FIOCRUZ;1997.

[42] Tucunduva LTCM, Garcia AP, Prudente FVB, CentofantiG,Souza CM, Monteiro TA,etal.A síndromedaestafa profissionalemmédicos cancerologistasbrasileiros. Rev Assoc Med Bras.2006;52(2):108-12.

[43] Sanfuentes M. Una mirada actualizada sobre el síndrome de burnout. Rev Psiquiatr Salud Ment. 2008;25(1-2):50-66.

[44] Aldrees TM, Aleissa S, Zamakhshary M, Badri M, Sadat-Ali M. Physician well-being: prevalence of burnout and associated risk factors in a tertiary hospital, Riyadh, Saudi Arabia. Ann Saudi Med. 2013;33(5):451-6.

[45] Shirom A. Acerca de la validez del constructo, predictores y consecuencias del Burnout en el lugar de trabajo. Cienc Trab. 2009;11(32):44-54.

[46] Ishak WW, Lederer S, Mandili C, Nikravesh R, Seligman L, Vasa M, et al. Burnout during residency training: a literature review. J Grad Med Educ. 2009;1(2):236-42.

[47] Arrogante Ó. Mediator effect of resilience between burnout and health in nursing staff. Enferm Clin. 2014;24(5):283-9.

[48] Cialzeta JR. El sufrimiento mental en el trabajo: burnout en médicos de un hospital de Alta Complejidad. [Tese de Mestrado]. Córdoba: Universidad Nacional de Córdoba; 2013.

[49] Paredes OLG, Sanabria-Ferrand PA. Prevalencia del síndrome de burnout en residentes de especialidades médico quirúrgicas, su relación con el bienestar psicológico y con variables sociodemográficas y laborales. Rev Fac Med. 2008;16(1): 25-32.

[50] Diaz Araya S. Comportamiento del síndrome de desgaste profesional en médicos que laboraron en Coopesalud R.L., de agosto a octubre de 2004. Acta Méd Costarric. 2007;49(2):107-10.

[51] Maslach C, Schaufeli WB, Leiter MP (2001). Job Burnout. Annual Review of Psychology, 52, 397-422.

[52] Maslach C, Leiter MP (2008). Early predictors of job burnout and engagement. Journal of Applied Psychology, 93,498-512.

[53] Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Moutier C, Szydlo DW, Novotny PJ, Sloan JA, Shanafelt TD (2008). Burnout and Suicidal Ideation among U.S. Medical Students. Annals of Internal Medicine, 149, 334-341.

[54] Lacovides A, Fountoulakis KN, Kaprinis ST, Kaprinis G (2003). The relationship between job stress, burnout and clinical depression. Journal of Affective Disorders, 75(3), 209-221.

[55] Lazarescu I, Dubray B, Joulakian MB, Blanchard P, Chauvet B, Mahé MA, Mornex F, Rocher F, Thureau S (2018). Prevalence of burnout, depression and job satisfaction among French senior and resident radiation oncologists. Cancer Radiotherapie, 22(8),784-789.

[56] Maslach C, Leiter MP. (2008). Early predictors of job burnout and engagement.Journal of Applied Psychology, 93,498-512.

[57] Waterman AD, Garbutt J, Hazel E, Dunagan WC, Levinson W, Fraser VJ, Gallagher TH. (2007).The emotional impact of medical errors on practicing physicians in the United States and Canada. The Joint Commission Journal on Quality and Patient Safety,33,467-476.

[58] Dewa CS, Jacobs P, Thanh NX, Loong D. (2014). An estimate of the cost of burnout on early retirement and reduction in clinical hours of practicing physicians in Canada. BMC Health Services Research, 14(1), 254.

[59] Hamidi MS, Bohman B, Sandborg C, Smith-Coggins R, de Vries P, Albert MS, Murphy ML, Welle D, Trockel MT. (2018). Estimating institutional physician turnover attributable to self-reported burnout and associated financial burden: a case study. BMC Health Services Research, 18, 851.

[60] Barbosa JIRA, Beresin R. A síndrome de burnout em graduandos de enfermagem. HIAE: São Paulo, 2007.

[61] Benevides-Pereira AMT. Burnout: o processo de adoecer pelo trabalho In: Burnout: quando o trabalho ameaça o bem-estar do trabalhador. São Paulo: Casa do Psicólogo., 2002b.

[62] Guimarães LAM, Cardoso WLC D. Atualizações sobre a síndrome de burnout. In: Liliana Andolpho Magalhães Guimarães. (Org.). Série Saúde Mental e Trabalho, vol II. 1 ed. São Paulo: Casa do Psicólogo, 2004, v. 3, p. 43-62, 2004.

[63] Martínez JCA. Aspectos epidemiológicos del síndrome de burnout en personal sanitario. Revista Española de Salud Publica, ano 71, n.º 3, p. 293-303, 1997.

[64] Russel DW, Velzen, EADV. Job-Related stress, social support, and Burnout among classroom teachers. Journal of Applied Psychology, vol. 72, n.º 2, 269-274, 1987.

[65] Sarriera JC. (2003). A síndrome de burnout: a saúde em docentes de escolas particulares. PUC-RS. SINPRO – Sindicato Cidadão [On line].

[66] Silva CCL, Fogaça TB. Síndrome de burnout em professores universitários: um estudo exploratório. Jovens Pesquisadores, ano 2, n.º 3, p. 24-36, 2005.

[67] Tamayo MR, Tróccoli BT. Exaustão emocional: relações com a percepção de suporte organizacional e com as estratégias de coping no trabalho. Estudos de Psicologia, Universidade Federal do Rio Grande do Norte, vol. 7, n.º 1, p. 37-46, 2002.

[68] Vasques-Menezes I, Soratto LAA. (2006). Burnout e suporte social. In: CODO, W. (coord.) Educação: carinho e trabalho. Brasília: Vozes, 2006.