

Burnout syndrome prevalence amongst physicians: a systematic review

Prevalência de síndrome de Burnout entre médicos: uma revisão sistemática

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ABSTRACT

Burnout syndrome is the result of intense and prolonged exposure to work-related stress factors, combined with the lack of social support and individual cooperation measures being taken, and is rising in prevalence around the world. However, despite the national literature being short on concrete data, it is expected to have similarities with the high numbers already encountered in other countries. This project systematically revises the prevalence of Burnout syndrome among hospital physicians in Brazil through searching the data platforms BVS, Lilacs, Medline and Scielo, using the keywords Burnout; Prevalence; Physician and Brazil published during January of 2009 and July of 2021. Seventeen original articles were selected to be analyzed and put through the Strobe scoring system. Of the 26 articles selected for analysis, 14 met the inclusion criteria and 3 were added based on the review of the references. The exhausting workload added to the hostile work environment and the responsibilities assigned to health professionals fomented the development of the syndrome, especially in intensive care physicians and women. The lack of research in the area and interventionist approaches suggest an underreporting of cases.

Keywords: burnout, professional, prevalence, physicians, Brazil, systematic review.

RESUMO

A síndrome de Burnout (SB) é o resultado da exposição intensa e prolongada aos estressores do trabalho, juntamente com a falta de apoio social e medidas individuais de cooperação e de maneira alarmante, está tendo um aumento na sua prevalência por todo o mundo. Entretanto, apesar da literatura nacional ter deficiência de dados concretos a respeito da prevalência da síndrome no Brasil, a tendência é que haja semelhança entre os altos números já encontrados em outros países. Este estudo objetiva revisar de modo sistemático a prevalência da síndrome de Burnout no Brasil em médicos do corpo clínico hospitalar. Através das bases de dados BVS, LiLACS, Medline e Scielo, com os descritores Esgotamento profissional/Estafa profissional/Burnout; Prevalência; Médico; Brasil, 17 artigos originais entre o período de janeiro de 2009 a julho de 2021 foram selecionados para análise e submetidos ao sistema de pontuação Strobe. Do total de 26 artigos selecionados para avaliação, 14 atenderam aos critérios de inclusão e 3 foram acrescentados a partir da revisão das referências. A exaustiva carga horária somada ao ambiente de trabalho hostil e às responsabilidades atribuídas aos profissionais de saúde favoreceram o desenvolvimento da síndrome, especialmente nos médicos intensivistas e mulheres. A carência de pesquisas na área e abordagens intervencionistas sugere uma subnotificação dos casos.

Palavras-chave: esgotamento profissional, prevalência, médicos, Brasil, revisão sistemática.

1 INTRODUCTION

Burnout Syndrome (BS) is a group of symptoms of multidimensional nature resulting from an intense and prolonged exposure to labor stressors, combined with the lack of social support and individual collaborative measures¹. The direct contact with the public at work is tied to a greater risk of the individuals to present feelings of incapacity to deal with problems that arise in daily work, and who do not recognize their accomplishments, which generates a lack of personal accomplishment and intensifies the process of physical and emotional distress, found in the syndrome physiopathology².

The emotional exhaustion (EE), by Maslach and Jackson (1981), is the basic component and, also, the most important element of the syndrome³. Such component derives from the prolongation of the silent and gradual suffering, sucking the energy required to face one more day at work⁴.

The depersonalization (DP), in turn, corresponds to the development of cynicism and skepticism by the worker in relation to the public, made clear by negative-related reactions and actions⁵.

The reduction of the professional accomplishment (PA) is addressed as the tendency of the worker to visualize their work and to self-evaluate it negatively. Such

behavior revives the feelings of unhappiness and dissatisfaction, affecting their occupational health negatively and acting as a co-factor for the other two manifestations already mentioned⁶.

Caring for the other is a key element in the development of the BS, since the emotional changes and the fine line between personal and professional involvement with the patient are triggers of the occupational stress⁷. Health care, taking care, has always been postulated as one of the noblest activities, however, nowadays, the negative impact that such huge and strenuous responsibility has on the physicians' mental health is highly perceptible.

As a method of tracking and quantification of Burnout the Maslach Burnout Inventory (MBI) in its version adapted to Portuguese is used. The questionnaire is based on the three dimensions of the syndrome: emotional exhaustion; depersonalization; and lack of professional accomplishment. Divided in 22 aspects, with 5 alternatives in each question, it evaluates the presented intensity of the described issues in a scale from I completely disagree (1) to I completely agree (7), in high, moderate, or low levels, with different values for each criterion (5)³.

Lack of consensus in the interpretation of Maslach scale for the diagnosis of the professional fatigue syndrome prompted the portrait of the results according to the criteria mentioned by Tucunduva et al (2006)⁸. In that work, the high propensity to BS was indicated through the score in 1, 2 or 3 criteria.

This review aimed to systematically examine the prevalence of BS in intra-hospital physicians in Brazil. In addition, it aimed to trace an epidemiological profile of those affected, risk factors and triggering, which will support reflections concerning strategies that may contribute to reduce the syndrome presentation.

2 METHODOLOGY

The bibliographic review from the available articles was carried out in the following bases: Medical Literature Analysis and Retrieval System Online (MedLine), Scientific Electronic Library Online (SciELO), Virtual Health Library (VHL) and Latin American and Caribbean Health Sciences Literature (LILACS). The work was carried out according to PRISMA recommendation (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) for systematic reviews. The original articles dated from January 2009 through July 2021 and from the following key words: professional fatigue (professional exhaustion or Burnout) [1], prevalence, physician and Brazil (in

Portuguese) or occupational Burnout (or professional Burnout), prevalence, physician, Brazil (in English). This review was not registered in any database.

Included studies were populational ones that reported the prevalence of the areas which comprise the BS in physicians in the Brazilian territory using the Maslach Burnout Inventory or its adaptation. In addition, the references of the eligible articles found were reviewed to find other articles that could be included for further reading. Articles which addressed other professional categories, except for those that met the aforementioned criteria, that were not in Portuguese or English language, that involved other than Brazilian territories, or not within the established inclusion criteria were excluded. Screening, eligibility, inclusion and data extraction were performed by two independent authors.

The studies which met all criteria were scored according to the STROBE initiative (Strengthening the Reporting of Observational Studies in Epidemiology), aiming to evaluate the descriptive quality of the articles and information. The checklist consists of 18 items common in cohort, case control and cross-sectional studies and 4 specific items for each one of them, with the purpose to guide the formulation of observational studies. Articles which scored smaller than 11 in the scale were considered of low quality, those which reached score from 11 to 17, of appropriate/good quality, and those which reached score above 17, of high quality.

3 RESULTS AND DISCUSSION

A total of 107 studies were found, however, after applying the inclusion criteria, 21 studies remained, 62 were excluded because they were duplicated, 1, because it covered countries other than Brazil, and 18 for evaluating physicians out of the hospital sphere or other professionals.

After the complete reading of the texts, 7 articles were ruled out because they were off the topic. After reviewing the references, 3 articles could be included, totaling 17 analyzed studies. The identification, screening, eligibility, and inclusion scheme may be observed in Figure 1, from the PRISMA flow diagram¹⁰.

According to score in the STROBE scale, 13 articles presented high quality and 4, good quality. The studies included and the score in each one in the STROBE scale are presented in Table 1

Figure 1. Flow diagram of identification, screening, eligibility, and inclusion methods of articles in the review, according to PRISMA Flow Diagram.

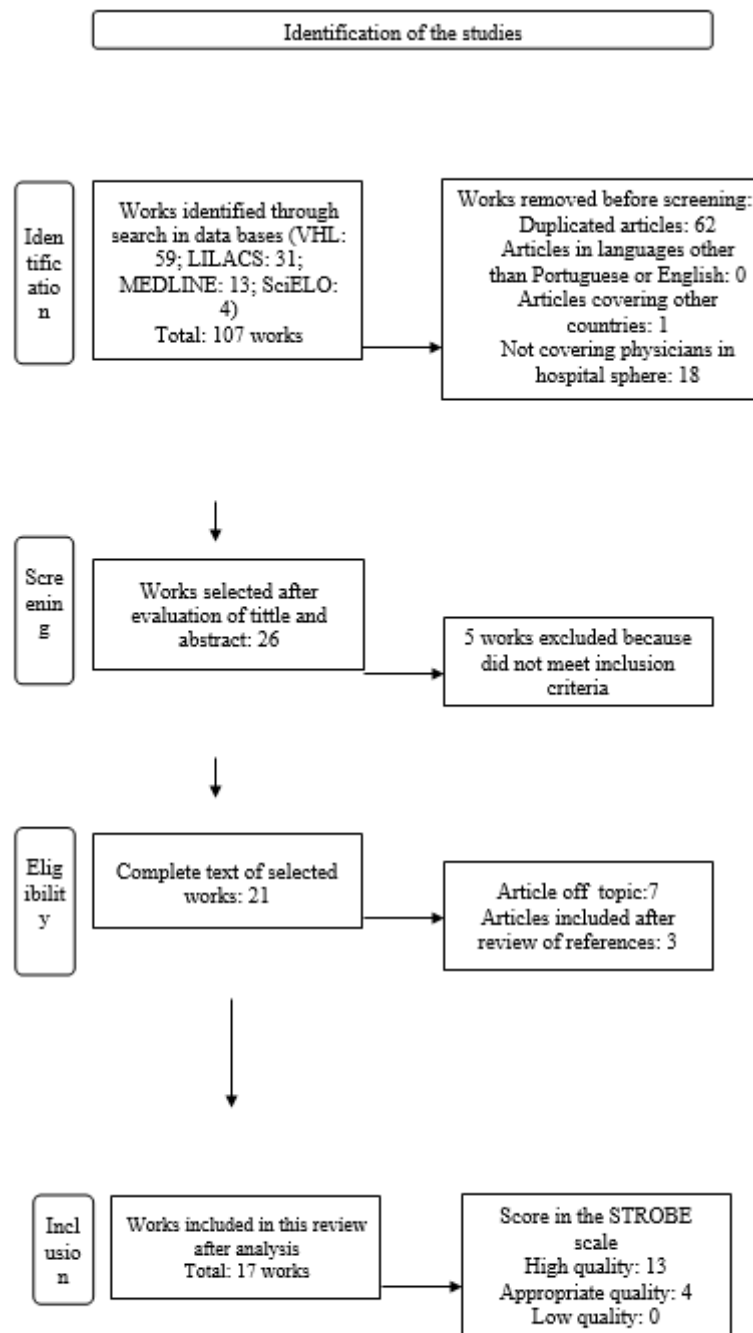


Table 1. Articles included in the review, identified per main author, year of publication, journal, and score in the STROBE scale.

Main author	Year	Journal	STROBE
Hoppen et al.	2017	Revista Brasileira de Terapia Intensiva	20
Cubero et al.	2015	Journal of Cancer Education	22
Monteiro et al.	2020	Brazilian Journal of Psychiatry	15
Silva et al.	2017	Revista da Associação Médica Brasileira	21

Barbosa et al.	2012	São Paulo Medical Journal	21
Barbosa et al.	2015	Revista Brasileira de Terapia Intensiva	21
Paiva et al.	2018	BMC Cancer	22
Gouveia et al.	2016	Revista da Associação Médica Brasileira	19
Sobrinho et al.	2009	Revista Brasileira de Educação Médica	19
Pasqualucci et al.	2019	BMC Medicine	21
Garcia, MD et al.	2014	Pediatric Critical Care Medicine	20
Corrêa Lima et al.	2018	Revista Brasileira de Medicina do Trabalho	20
Tironi et al.	2016	Revista Brasileira de Terapia Intensiva	18
Alvares et al.	2020	Revista Brasileira de Terapia Intensiva	22
Lima et al.	2011	Ciência & Saúde Coletiva	17
Pastura et al.	2019	Revista Brasileira de Educação Médica	17
Bond et al.	2018	Arquivos Brasileiros de Cardiologia	15

Hoppen et al. (2017) analyzed the profile of 52 intensive care physicians of adult patients in Porto Alegre, who presented high or average levels of EE of 52%, DP of 61% and only 26.3% presented high degree of PA. According to Maslach Inventory 5.7%, 55.7%, and 38.4% of respectively, high, average and low degree of Burnout susceptibility were found. Sociodemographic data of such study revealed 59.6% of male population, 56.6% were in common-law marriage, 51.9% had at least a child, 88.5% were professional physicians and 11.5% were resident physicians. The majority (84.6%) worked in night shifts, 90.3% also worked over the weekends, and 86.5% worked in more than one place. 76.9% of the individuals exercised regularly. Exhaustive workload, with more than 15 consecutive daily services and more than 60 hours of work weekly, had significant relationship with high levels of EE and DP11.

Similarly, examining results found in 67 physicians on duty of one intensive care unit (ICU) in Maceió, Barbosa et al. (2012) identified 55.2% of women, with average age of 43.9 years and weekly workload of 43.8 hours. According to the questionnaire applied, in the criteria EE, DP and lack of PA, those interviewed scored, respectively, 41.7%, 37.3%, and 58.2%. High levels in at least 1 criterion were observed in 70.1%12.

Sobrinho et al. (2010), questioned 297 physicians who worked at an ICU in Salvador with registration at the Society of Intensive Care Medicine of Bahia state and

observed the predominance of men (71.7%), with average age of 34.2 years, in common-law marriage (52%) and who had no children (53.2%). From those, 27% were intensive care physicians, 59.3% had graduated in the past 10 years and 66.4% had weekly workload from 60 to 90 hours, and in 51% of the cases, 12 to 23 hours corresponded to work in the ICU. From the surveyed group, 47.5% showed high EE, 24.6% showed high DP and 28.3% showed low PA. The high propensity to BS was noted in 7.4%, population who had high score in 3 dimensions¹³.

Another research, carried out by Tironi et al. (2016), analyzed data of 180 intensive care physicians of five Brazilian capitals (70.6% adult, 12.2% pediatric, and 17.2% neonatal), the study found 36.6%, 20%, and 5% of high propensity to the syndrome, when considered high levels in one, two, and three dimensions, in the due order. EE was present in 50.6%, DP in 26.1% and lack of PA in 15%. The association of EE and DP was identified in 13.9% of the participants. In the population, in which women were the majority (54.4%), the average age was 39 years, 53.6% were in common-law marriage and had children. When qualified by higher education degrees, 63.4% had specialization, 19.4% had master's degree and 17.2% had doctorate. From them, 36.6% worked in the private sector and 25.7% worked in the public sector. The weekly working hours ranged from 49 to 72 hours in 50.3%¹⁴.

Finally, in the intensive care sphere, Alvares et al. (2020) evaluated 116 physicians working in 17 public ICUs in the city of São Luís, in Maranhão. Participants of the research were 56.9% of women, with average age of 38.5 years, 76.8% were in common-law marriage, 54.1% were UCI specialists, with average working time around 8.3 years and 92.8% were post-graduated. The belief in some religion was present on the most (92.7%) and 45.1% used to exercise regularly. High results of EE were observed in 29%, of DP in 6.5% and low PA in 14.5%. A lesser association to low PA in physicians who worked in cardiac or pediatric ICUs was observed. Burnout was observed in 0.6% of the group¹⁵.

Considering the studies carried out so far, in the field of intensive care, a homogeneous division for gender can be noticed, standing out only the article of Sobrinho et al. (2010) in which 71.7% of the participants were of male gender. It is supposed that such difference may be related to the date of publication and the context inserted, in which women were still minority in prominent positions. Nonetheless, when exploring the BS, the female population was considered the most vulnerable. It is believed that the double

working day, connection of the extended workload with family commitments, may justify such fact.

The literature indicated that married people or with financial dependents experience feelings of family responsibility¹⁶. Therefore, concern with the monthly income is observed, creating exposure to long working hours and duties. However, family life empowers the person to face emotional problems and the family support appeared as a protection factor for EE, as well as psychotherapy for DP.

Younger physicians, with greater financial need, professionals with no specialization, who have fewer experience (recently graduated), those who work on weekends or who work on duties and with smaller monthly incomes, presented high levels in the three dimensions of Maslach inventory, highlighting the relative overload brought by such variables.

Another stress factor, presented in most works, was the interpersonal relationship. In Barbosa et al. (2012), 77.6% of the physicians interviewed reported stress levels linked to administrative problems¹². In Tironi et al. (2017), from the main sources of stress mentioned, three were in the sphere of relationship, including interpersonal demands between doctor and patient, and doctor and patient's family members¹⁴. Yet, high prevalence of burnout was related to those who did not do exercises regularly and did not have a hobby, i.e., who had little time to dedicate to activities which involved self-care and were out of the working sphere.

It can be inferred that BS frequency in intensive care professionals occurs by the demand of the area in continuous updates on scientific knowledge and qualifications, as well as abilities, attention, and quick thinking, in addition to emotional control to deal with patients and their relatives and the multiprofessional team. However, despite having to face death on daily basis, the possibility to save lives contributes for the satisfaction and meaning attributed to work, showing high rates of PA, except in the search of Barbosa et al. (2012)¹². In Hoppen et al. (2017), higher income was associated to a higher level of PA and lower level of depression, i.e., financial valuation of the professional both brings possibility to access more resources so one can deal with the overload and reinforces the feeling of well done or accomplished duty¹¹.

When evaluating the prevalence of BS symptoms in 54 oncology residents of 11 institutions located in the southern, southeastern and northeastern regions of Brazil, Cubero et al. (2015) indicated 49% of high level of EE, 67.4% of DP and 56.9% of high PA, and 76% have met the current criteria for the syndrome. From those who participated

in this study, 46.3% were women and 53.7% men, with average age of 28.4 years, 14.8% were in common-law marriage and 94.4% did not have children, and 67.3% counted on familiar support. Only 17.3% used to do physical exercises, but 25% made use of alcohol, 38.5% had hobbies, 26.4% had been on psychotherapy previously or were currently on psychotherapy, and 9.3% had been on psychiatric care before or were currently under such treatment. Only 11.5% of the professionals used to spend 20 hours or more without working every week¹⁷.

Data from the study¹⁷ showed that a significant portion of the participants met the criteria for BS at the admission to the program, suggesting that the stress started during the previous residence program, in Medical Clinic. The severity of the components EE and DP worsened significantly during the first year of residence course.

In the research of Monteiro et al. (2020), 66 psychiatric resident physicians in a city in the South of the country were evaluated. The results found were similar to the previous study aforementioned. A prevalence of 62.1% of DP, followed by 47% of EE was found. The feelings of not corresponding to the expectative of the preceptors and of feeling pressured by them were the most correlated items. On the other hand, 69.7% of the interviewed felt professionally accomplished. From those, 83.3% were indicated as meeting the criteria for burnout. From the population, it is only known that 53% was composed of men and the average age was 28.3 years. Other sociodemographic data were not described, which limited the comparison with other studies.

Gouveia et al. (2016) evaluated resident physicians (n = 129) of Hospital das Clínicas de Pernambuco and found very high levels of lack of PA (94.6%), and 59.7% of EE and 31.8% of DP. From the group, 67.4% were residents in the first or second year, 52.9% were up to 28 years old, 51.9% were female and 33.9% of the individuals were common-law married. The need to work in more than one shift for an additional income was present in 84.5%, and 56.6% used to work more than 60 hours a week. Alcoholic beverages were consumed by 72.7%. It is indispensable to remember that the study was taken in a public hospital, short time after the resident physicians went on strike for a little time, stopping work temporarily. Such event may have influenced the low PA found at work¹⁹.

At the investigation of Pasqualucci et al. (2019), 606 resident physicians and fellows of Faculdade de Medicina de São Paulo, with average age of 28 years, answered two questionnaires. Concerning sociodemographic data, 15.5% informed they were in common-law marriage, 44.1% had graduated in the city of São Paulo, 26.1% attended to

surgery specialization and 66.8% attended to clinical specialization. From those, 81.8% were in the first three years of residence. As scored in Maslach Inventory, 63%, 63.5%, and 41.7% showed high levels in EE, DP, and PA criteria, in that order. No correlation was observed between sociodemographic data and mental health. However, symptoms of anxiety were associated to physicians classified as non-clinical and non-surgery specializations, such as Pathology, Radiology, Acupuncture, Anesthesiology, Forensic Medicine and Nuclear Medicine²⁰.

Similarly with other articles which analyzed resident physicians, Pastura et al. (2019), studied 23 pediatric residents and saw high prevalence of EE (74%), DP (39%), and lack of PA (57%). 69.5% and 17.3% of the studied physicians in all dimensions scored high levels in up to two criteria. The study was comprised of 95% of women, with average age of 26.9 years, 91.3% were single and had no children, 70% still depended financially on third persons and 30% did not identify with any religion. The average workload was 75 hours weekly, ranging from 60 to 90 hours, and 86.9% had additional labor tie²¹.

The work above started as a prevalence study, based on the high levels of EE, DP and low PA, however it developed to an intervention strategy. Group dynamic strategy was used, Balint group experience type. The authors stated that it was not possible to make correlation of data with prevalence of BS because of difficulty in the separation of the completed questionnaires.

Finally, in the study of Bond et al. (2018), 109 resident physicians (96.6% clinical and 3.4% surgical cardiology) expressed high levels of EE (61.5%), DP (56.9%) and low PA (49.5%). Alarmingly, high predisposition to BS was observed in 23.9% with high levels in one criterion, 29.4% in two criteria and 28.4% in all of them. Population characteristics showed 62.4% of male physicians and 77.1% single. Great portion (91.7%) needed a second job for income supplementation. The poster of this study neither identifies the limitations of the study, and nor describes other analyses²².

Overall, the studied groups were similar. Except for the pediatric residents, in which women made up 95% of the participants, the other groups balanced men and women. Most of them were in the average age of 28 years, were not in common-law marriage, and neither had children. Levels of EE and DP also corresponded, presenting a higher EE in pediatric residents. In the research of Monteiro et al. (2020), DP was observed in those who checked the item “I feel more pressured than helped by my preceptors” and EE was observed in those who checked items “I feel that I’m falling short

of what the preceptors expect of me”, “I feel more pressured than helped by my preceptors”¹⁸.

The context of long workloads and low pay, in which resident physicians are inserted, favors the development of symptoms such as depression, anxiety and stress¹⁷. The pursuit of financial independence creates a need for another labor tie, as seen in the largest portion of the residents in previous studies. According to the literature, it was found the association between number of patients seen per day, weekly work hours and the prevalence of BS.

In Gouveia et al. (2017), the risk to develop burnout was twice as high in surgical specialty physicians, when compared to the other residents¹⁹. In addition, curiously, the fact of having experienced some stressor event in the past 6 months, raised the chances of triggering the syndrome by eight times, pointing to the need of mental healthcare beyond the dimension related to the professional practice.

As a rule, low PA prevailed in all articles, except in the ones of pediatric resident. Nonetheless, it is worth mentioning the alarming fractions of 94% of residents professionally dissatisfied, highlighted in Gouveia et al. (2017), although it was carried out in a smaller sample of subjects than the other works conducted with residents¹⁹.

Observing 227 physicians at Barretos Hospital Cancer, not separating the specialties, de Paiva et al. (2018) noticed high levels of EE and DP in 41.9% and 37.6% respectively. Yet, low PA prevailed in half of the group (50.9%). Considering high propension to burnout based on high rates in 3 dimensions, 58.1% of the studied physicians are included. The average age of the population was 34 years and 61.7% were married and 57.3% did not have children. They were divided in residents (38.8%), physicians of the clinical body (38.8%), surgeons (27.8%), intensive care physicians (4.5%) and anesthesiologists (3.5%)²³.

Based on the high prevalence of burnout in the article, the authors observed that the physicians who worked in intensive care or in the emergency department were most affected within the group. Possibly, dealing with potentially serious cases, increases the chances to develop the syndrome. However, death rates associated to the workplace did not interfere in the prevalence. Furthermore, in contrast to taking care of patients in palliative care, taking care of patients with cancer who needed invasive interventions was related to a higher prevalence of burnout. The oncologic area imposes daily facing of situations of suffering, pain, and loss. Thus, conducting the diagnostic investigations, informing the prognosis, deciding and following the treatment and its changes of often

unpleasant circumstances, associated to the uncertainty of healing and the possibility of death leave the professionals in front of contexts of strong emotional charge²⁴.

In the area of Anesthesiology, Barbosa et al. (2015) investigated the presence of the syndrome in physicians in Maceió. On that occasion, 42 anesthesiologists were interviewed, 51.5% were men with average age of 49.8 years. High rates of EE were present in 22.5%, DP in 44,19% and PA in 51.6%. The high predisposition to burnout was considered of 9.3% by those who scored high levels in 3 dimensions²⁵.

In the survey, it was observed that the familiar support and being in a common-law marriage were related with lower rates of the syndrome and it was concluded that a consolidated family life would be a protecting factor. Among the stressor factors, service overload, lack of resources, possibility of complications and interpersonal problems were mentioned. As well as in the other articles, high workload, and emergency duty scheme and alternating between night and day have proven to be important for the triggering of BS. In addition, regular physical activity was associated to a lower level of DP, in accordance with the high rate of burnout in sedentary participants.

Garcia et al. (2014) studied 70 pediatricians and pediatric intensive care physicians from two hospitals of tertiary level in the south of the country. From them, 79% were women, 53% aged above 40 years, 60% were in common-law marriage and 51% had at least one dependent. Almost all of them (97%) owned a car or a house (73%), 76% had at least one hobby and 59% did regular physical activity. Regarding the profession, 86% had been graduated for more than five years, 93% had a monthly income above R\$10.000,00 (US\$ 1.800,00); 57% used to work in up to two hospitals, 67% worked more than 60 hours a week and, 43% were taking courses in the area. Two criteria for the characterization of high propension to burnout were observed, 50% scored highly in one dimension, 28.5% in two, and, 8.5% in three. High rates of EE were found in 44.2%, of DP in 24.2%, and low rates of PA in 17.1%²⁶.

Similarly, Silva et al. (2017) checked among 78 pediatricians of the University Hospital of the Federal University of Maranhão that the great majority (87.2%) consisted of women with average age of 49 years. In the same number, 87.2% had children, and 69,2% were in common-law marriage. The professionals working for over 20 years corresponded to 59% of the participants and 94.9% also worked in other institutions. High weekly workload (over 60 hours) was observed in 44.9%, and 35.9% still worked on weekly duties. Such individuals presented significant levels of EE (42.3%) and of DP

(38.5%), but high level of PA (93.6%). When the high propension to BS was analyzed, 33.3% scored high level in 1 dimension, 23.1% in 2 dimensions and 2.6% in 327.

Lima et al. (2011), also evaluated the prevalence of BS in 158 physicians of a public hospital in Recife. Among these, 62.6% were pediatricians and 37.4% were gynecologists. According to Maslach Inventory, high propension to burnout was observed in 69%, scoring in one dimension, 37.3% in two dimensions and, 5.1% in the three of them. Separately, EE and DP in high level were found in 61.4% and 36.7%, respectively, and low PA in 13.3%. The population studied was made up mostly (83.5%) of women with average age of 37.5 years, 70.3% were in common-law marriage. They had a mean workload of 20 - 40 hours weekly, and 71.5% had three or more employment bonds, 82.9% were specialists in the area, 81.6% had 11 years or more of profession, 72.8% were on duties, 82.9% worked in hospital care and 79.7%, in ambulatory care. In terms of teaching and researching, 55.7% taught in graduation, 35.4% taught in post-graduation and 27.2% were conducting researches²⁸.

In the above study, “usually or always” carry out tasks quickly, “sometimes or never” have enough time to carry out obligations, being a man, and do not expect to grow professionally were associated to the high risk of developing burnout. Despite that, the prevalence of high PA, possibly eased the effects of high EE and DP, keeping the population in a transition moment to the syndrome.

Among the pediatricians, women being in common-law marriage, and having dependents prevailed. Garcia et al. (2014), as well as Silva et al. (2017), showed that those who worked in intensive care units presented high levels of EE and DP, and lower PA, when compared to practitioners and emergency room professionals. It is assumed that intensive care physicians are exposed to higher tension and stress. On the other hand, in the emergency room, tension is mitigated by the personal initiative, quick decision-taking and environment control.

Garcia et al. (2014) observed that working in intensive care unit was an isolated risk for BS, but there was not association with socioeconomic factors. However, the other studies highlighted the work overload as an important syndrome triggering factor. Low level of PA prevailed in physicians who “sometimes or never” had enough time to carry out tasks and in those who had a weekly workload of 41 hours or more. Nonetheless, when pediatricians were compared to other physicians, higher levels of PA were noted. Professionals who worked in other institutions, with weekly workload higher than 60 hours and night duties presented high rate of EE²⁶.

Surprisingly, it was observed lower levels of burnout with increasing age. Also, widowed and separated ones presented low level in the three dimensions, in contrast with the married ones who showed to be more exhausted. Yet, the shortest time of insertion in the labor market was related to higher levels of EE and DP. Possibly, lack of knowledge and experience, and the need of income expose younger physicians to exhausting workload and situations of stress which could influence in the development of BS.

A study involving military physicians was found. Corrêa Lima et al. (2018) analyzed data of 134 physicians with military training at Hospital Naval Marcílio Dias, in Rio de Janeiro, and observed high pre-disposition to burnout in 82.1% of the professionals, who scored high levels in three criteria. Separately, high levels of EE in 6%, DP in 44.8% and PA in 28,4% were seen. The group consisted of 52.2% of women, 93% with age up to 50 years, 54.5% were in common-law marriage and half (50%) had children. Regular physical activity was found in 66.4% and only 4.5% were smokers. The majority (66.4%) belonged to the clinical staff, as opposed to 33.6% belonging to surgical specialties. Monthly income of up to 15 minimum wages (Brazil monthly minimum wage is R\$1.000, close to US\$200,00) was obtained by 36.7% and 80.6% worked on up to two duties a week, 86.5% worked in up to two hospitals, 69.3% worked less than 48 hours a week and 84.3% also worked in practice²⁹.

It can be observed an increased prevalence in military female physicians, mainly when associated to the factors: age under 50 years, being in common-law marriage and having an income lower than 15 minimum wages. It is supposed that such results are linked to the adversities faced by women in the double working day and handling family life. Refuting other studies, the work shows that 57.1% of the participants, affected by burnout did regular physical activity, and it is important to point out that the benefits of doing regular physical activity may not be unequivocally effective to minimize the BS because it has a multifactorial nature, and which can be connected to overwork, difficulty to manage conflict and lack of support at work, limited technical abilities and other points discussed previously.

4 CONCLUSION

Even though BS is not linked to any medical specialty, health workers are more vulnerable, because they need wide knowledge in the area, added to the problems of the health system working conditions, which causes the professionals to adjust themselves to these less homogeneous conditions. Increasingly, physicians show an excessive workload

and little time dedicated to the family as stress and risk factors for the syndrome. Even though the use of Maslach Inventory is not standardized, other methods are used for the diagnosis, which hinders the comparison between the studies, as well as applying the test at the work environment can also affect the results.

Although this review is based on heterogeneous studies, it is conceivable that an exhaustive workload linked to hostile work environment and the huge demand contribute for the emergence and maintenance of the framework. After analysis of the data, BS is recurrent among physicians in Brazil, notably for intensive care medicine and for the female gender.

The lack of approach on the subject among physicians (few studies were found) suggests underreporting of cases as well. It is essential to disseminate information to the professionals about this issue and discuss it further. The concept in which the physicians will respond to all the patient's demands also causes a great pressure on the professionals, being crucial to redefine a new meaning to this image.

CONFLICTS OF INTEREST

None.

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