

Burnout syndrome in healthcare professionals: an integrative review

Layla Thamm Jarruche¹, Samantha Mucci¹

1. Universidade Federal de São Paulo, São Paulo/SP, Brasil.

Abstract

The incidence of burnout syndrome or professional exhaustion is significant among healthcare professionals, with negative impact on the personal, institutional, governmental, and patient care spheres. Aiming to investigate Brazilian research on the topic, we conducted an integrative literature review and selected 35 articles published from 2014 to 2019. We identified a high rate of burnout syndrome in healthcare professionals, a high risk of developing this condition and other mental disorders. Most studies were conducted in hospitals and public health centers, involved health professionals and had a greater number of female professionals. We emphasize the need to conduct further studies in the field, especially regarding other professional categories and other work environments, also analyzing the impact of the predominance of female healthcare professionals.

Keywords: Burnout, Professional. Health personnel. Occupational health.

Resumo

Síndrome de *burnout* em profissionais da saúde: revisão integrativa

A incidência de síndrome de *burnout* ou síndrome do esgotamento profissional é significativa entre trabalhadores da saúde, com impacto negativo no âmbito pessoal, institucional, governamental e no cuidado com os pacientes. Com o objetivo de investigar o campo de pesquisas brasileiras sobre o tema, foi realizada revisão integrativa da literatura selecionando 35 artigos publicados entre 2014 e 2019. Identificou-se alto índice de síndrome de *burnout* em profissionais da saúde, assim como alto risco de desenvolver essa síndrome e incidência de outros transtornos mentais. A maior parte das pesquisas envolve profissionais de medicina e enfermagem, apresenta a maioria dos profissionais de saúde como do sexo feminino e é desenvolvida em hospitais e unidades básicas de saúde. Ressalta-se a necessidade de desenvolver mais pesquisas na área, principalmente envolvendo outras categorias profissionais e abrangendo outros ambientes de trabalho, analisando ainda o impacto da predominância de profissionais mulheres na saúde.

Palavras-chave: Esgotamento profissional. Pessoal de saúde. Saúde do trabalhador.

Resumen

Síndrome de *burnout* en profesionales sanitarios: revisión integradora

La incidencia del síndrome de *burnout*, o síndrome de desgaste profesional, es significativa entre los trabajadores de la salud, con un impacto negativo en el ámbito personal, institucional, gubernamental y en la atención al paciente. Para investigar los estudios brasileños sobre el tema, se realizó una revisión integradora de la literatura, con 35 artículos publicados entre 2014 y 2019. Se pudo identificar una alta tasa de síndrome de *burnout* en los profesionales de la salud, así como un alto riesgo de desarrollar este síndrome y la presencia de otros trastornos mentales. La mayor parte de las investigaciones involucran a profesionales médicos y de enfermería, presentan la mayoría de los profesionales de la salud como mujeres y se llevan a cabo en hospitales y unidades básicas de salud. Se destaca la necesidad de más investigaciones en el área, con otras categorías profesionales y otros entornos laborales, analizando también el impacto del predominio de las mujeres entre los profesionales en salud.

Palabras clave: Agotamiento profesional. Personal de salud. Salud laboral.

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Mental disorders are characterized by anxiety symptoms, memory and concentration difficulties, fatigue, irritability, insomnia, and somatic complaints¹. Their development is related to psychological suffering and are usually diagnosed as anxiety and depression^{1,2}. The incidence rate of these conditions is significant: 28.8% lifetime risk of anxiety disorders³ and 15 to 18% lifetime of major depression⁴. Studies point to a correlation between psychic symptoms and work-related suffering, based on three main conceptual models: the stress-adaptation model, the demand-control model, and burnout⁵.

Stress is defined as the individual's response to pressures that trigger the fight-or-flight response in an attempt to return to a state of equilibrium. Stressors interfere in the organism's homeostatic balance and can be physical (originating from the environment), cognitive (evaluated as threats to the individual's integrity) or emotional (feelings or events with a prominent affective component). The consequences of this trigger are physical and psychological: accelerated thinking, increased cardiorespiratory function and muscle tone, and altered attention⁶. The concept of stress is used in medicine to name the set of reactions to situations that require adaptive effort⁵.

The stress-adaptation model indicates that nowadays stress and adaptive responses are much higher than before, as there are increasingly more external pressures at work, rapid technological changes, competitiveness, pressure for results, recession, fear of unemployment, etc.⁵ The demand-control model, in turn, associates the psychological demand of working with the degree of autonomy and control over the work activity⁷, where activities with greater psychological demand and less autonomy would have greater potential to cause illness. The burnout model is defined as *a response to interpersonal stressors that occurs in work situations*⁸, with the burnout syndrome being the intensification of occupational stress.

This type of stress, unlike common stress, have work as an essential factor for its development, occurring when it is impossible for the professional to act on the stress agents.

The adaptation mechanism is thus disrupted, stress symptoms persist, and the organism is deteriorated or exhausted. Burnout syndrome affects people who perform activities with a lot of interpersonal contact, although this particularity is controversial⁵. However, this definition generates different terms for this condition, such as "work," "professional," "assistance," or "occupational" stress, linked to perceptions of illness induced by direct service to the public. "Professional" or "excellence" neurosis, "professional burnout syndrome" and "nervous exhaustion" are other terms used. Such variety of nomenclatures complicates surveying the bibliography in the field^{9,10}.

The first studies on the topic appeared in the 1960s, becoming more present and recognized in Brazil – where it is identified as a work-related disease¹¹ – in the 1970s⁸. According to Fabichak, Silva-Junior and Morrone¹², international studies show a 50 to 74% incidence of burnout syndrome in medical professors, nurses, and residents. In Brazil, the same authors pointed out that this illness affects 78.4% of medical residents from several areas¹².

The Maslach Burnout Inventory (MBI) is the most widely used instrument to measure burnout¹³ and aims to detect the syndrome or its risk by identifying consequences. It consists of 15 questions subdivided into three subgroups: emotional exhaustion, considered as energy loss and feeling of emotional exhaustion; depersonalization, characterized as a lack of sensitivity and rudeness when treating the public; and professional accomplishment, defined as a negative self-assessment of one's own work or reduced feelings of competence regarding personal gains achieved at work¹⁴. Answers range from "never" to "every day," and their frequency is quantified. High mean scores for emotional exhaustion and depersonalization and low for professional accomplishment indicate burnout syndrome.

We have no precise data on the incidence of burnout syndrome, but it is estimated to vary from 4 to 85.7%, depending on the population studied¹⁵. Brazil has few publications on the topic¹⁵, which highlights the importance of this research, considering the impact of the health professionals' illness on the well-being of patients, with social,

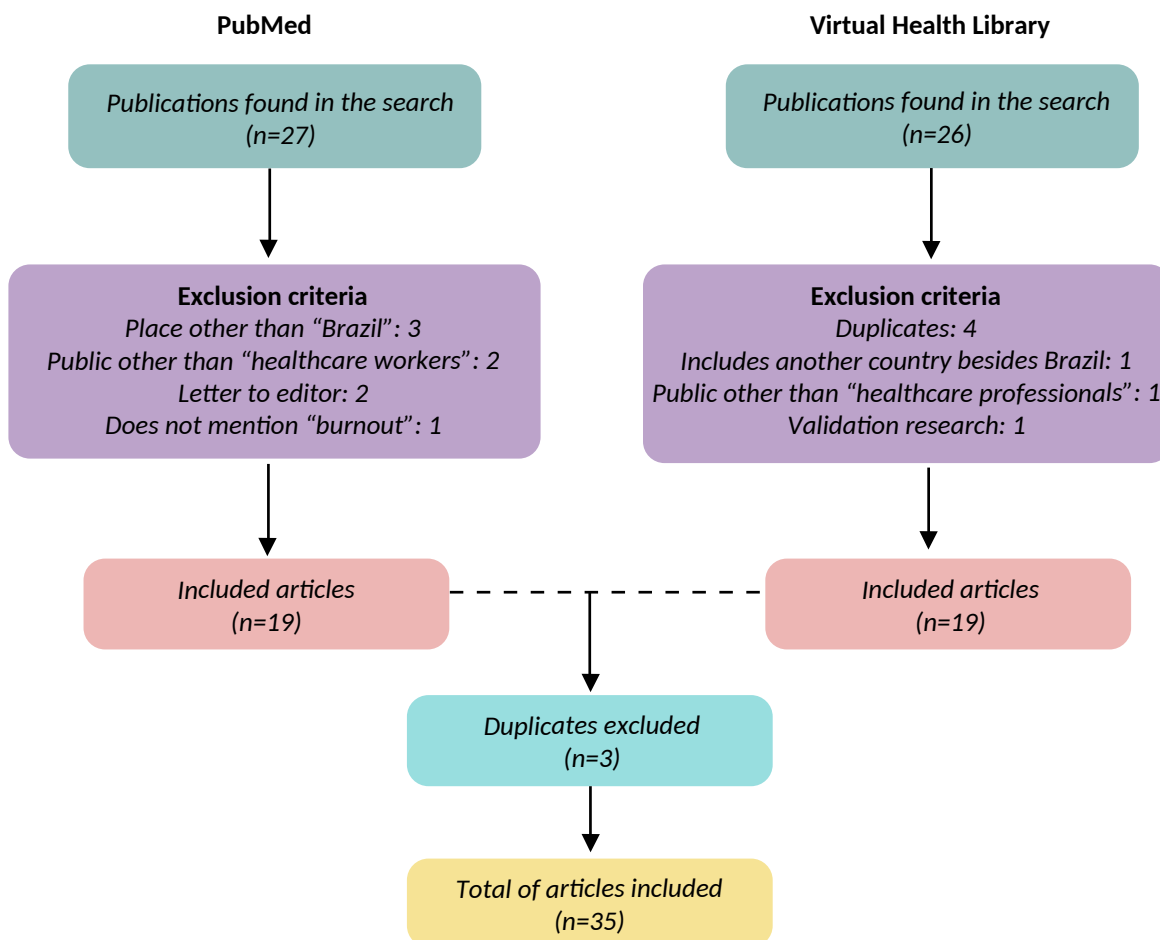
personal and institutional consequences. Thus, this study conducted an integrative review of the Brazilian production on psychological suffering related to burnout syndrome in healthcare professionals between 2014 and 2019.

Method

This is an integrative literature review structured in the following steps: definition of the research question; database search; data collection; categorization and critical analysis of the studies included; discussion; and conclusion¹⁶. We posed the following research question: what was the knowledge produced in the Brazilian literature between 2014 and 2019 about burnout and healthcare professionals?

We searched two databases. In PubMed, the search involved the descriptors “burnout” and “health personnel,” pulled from the Medical Subject Headings. In the Virtual Health Library, we used the keywords “burnout” and “health personnel,” draw from the Health Sciences Descriptors. In both cases the keywords were used in association with the Boolean operator “and.” Inclusion criteria included original articles, dissertations, and literature reviews published in Portuguese and English (English versions of Brazilian articles) between 2014 and 2019, having Brazil as the study setting, and whose sample involved healthcare professionals. We excluded papers that did not meet the inclusion criteria, as well as duplicates and articles in other formats (Figure 1).

Figure 1. Flowchart of article selection



Both authors collected the data separately and compared the results for greater reliability, without using tools to select and extract data. After this

step, we classified the corpus according to: type of study, instruments used, sample size, research location, and authors' background (Chart 1).

Chart 1. Categorization of selected articles

Author(s) and year	Type of study	Instruments used	Sample size and research location	Area
Almeida and collaborators; 2016 ¹⁷	Integrative review	Selection and exclusion criteria	Eight articles from the Latin American and Caribbean Center on Health Sciences Information virtual library	Nursing
Alves and collaborators; 2018 ¹⁸	Descriptive, analytical and exploratory	Mental health services work assessment scale	70 nursing professionals in hospital psychiatric services	Nursing Pharmacy
Atanes and collaborators; 2015 ¹⁹	Cross-sectional, correlational study	Awareness Scale, Perceived Stress Scale, Subjective Well-being Scale	Doctors, nurses, nursing assistants and community health agents in HC with the FHS	Medicine Psychology
Dorigan, Guirardello; 2018 ²⁰	Quantitative correlational study	MBI, NWI-R, SAQ (short form 2006)	465 nurses with active registration in the Regional Nursing Council of São Paulo working in care	Nursing
Fernandes, Nitsche, Godoy; 2018 ²¹	Quantitative	MBI, Smoking History Questionnaire, Audit, Fagerström Dependency Questionnaire, carbon monoxide measurement	160 nursing professionals in four ICUs of a university hospital	Nursing
Ferreira and collaborators; 2017 ²²	Descriptive qualitative	Interviews	15 nurses and nursing technicians in a family health unit	Nursing
Garcia and collaborators; 2017 ²³	Cross-sectional, correlational study	Professional characterization, Brazilian Organizational Culture Assessment Instrument and Pleasure and Suffering at Work Scale	214 members of the hospital nursing team	Nursing
Garcia, Marziale; 2018 ²⁴	Integrative review	Manual search with descriptors in databases	14 articles	Nursing
Guirardello; 2017 ²⁵	Cross-sectional study	MBI, NWI-R, Security Attitudes Questionnaire	114 ICU nursing professionals at a teaching hospital	Nursing
Hoppen and collaborators; 2017 ²⁶	Cross-sectional study	MBI	52 ICU doctors	Medicine
Leite, Nascimento, Oliveira; 2014 ²⁷	Qualitative, descriptive and exploratory study	Interviews to assess perception of quality of life	40 healthcare professionals in five HC with the FHSF Program	Nursing

continues...

Chart 1. Continuation

Author(s) and year	Type of study	Instruments used	Sample size and research location	Area
Lorenz, Sabino, Corrêa Filho; 2018 ²⁸	Cross-sectional, correlational study	MBI, questionnaire to characterize nurses, to assess perception about the quality of care and material and human resources and to verify intentions to leave current work and nursing	198 nurses in HC with the FHS Program in Campinas/SP	Nursing Medicine
Lorenz, Guirardello; 2014 ²⁹	Cross-sectional, correlational study	MBI, NWI-R, nurse characterization sheet	198 nurses in HC in a Brazilian city	Nursing
Martins and collaborators; 2014 ³⁰	Exploratory, descriptive and correlational	MBI, questionnaire with individual, sociodemographic aspects and team coverage areas	107 primary healthcare professionals from three small cities in Minas Gerais	Psychology
Mattos, Araújo, Almeida; 2017 ³¹	Cross-sectional study	Self-Reporting Questionnaire-20	2,523 primary care professionals in five cities of Bahia	Nursing Psychology
Maissiat and collaborators; 2015 ³²	Cross-sectional study	Work Context Assessment Scale and Indicators of Pleasure and Suffering at Work Scale	242 primary care professionals in 15 health centers from a city in Rio Grande do Sul	Nursing
Migowski, Piccoli, Quevedo; 2016 ³³	Descriptive, cross-sectional study	Quality of Working Life Questionnaire-78	95 nurses and nursing technicians from a hospital in the Serra Gaúcha region, Rio Grande do Sul	Nursing Mathematics Physical Education
Mota, Dosea, Nunes; 2014 ³⁴	Cross-sectional, quantitative study	MBI, Job Stress Scale, socioeconomic and occupational questionnaire	222 community health agents in 43 family health units in Aracaju/SE	Physiotherapy
Oliveira and collaborators; 2018 ³⁵	Cross-sectional study	MBI, Job Satisfaction Survey, PHQ-9, SAQ	271 professionals (including support staff) in a teaching hospital in São Paulo	Pharmacy
Dal Pai and collaborators; 2015 ³⁶	Cross-sectional study	MBI, Survey Questionnaire: Workplace Violence in the Health Sector, Self-Report Questionnaire	269 professionals in a public hospital	Nursing
Pegoraro, Schaefer, Zoboli; 2017 ³⁷	Literature review	Manual search with descriptors in databases	35 articles	Nursing
Pereira-Lima, Loureiro, Crippa; 2016 ³⁸	Quantitative research	PHQ-4, Audit-3, NEO Five Factor Inventory, Social Skills Inventory, sociodemographic questionnaire	270 resident doctors from a hospital in Ribeirão Preto/SP	Medicine Psychology
Portela and collaborators; 2015 ³⁹	Integrative literature review	Manual search with descriptors in databases	11 articles in five databases	Nursing

continues...

Chart 1. Continuation

Author(s) and year	Type of study	Instruments used	Sample size and research location	Area
Santos, Neri, Wanderley; 2018 ⁴⁰	Quantitative research	MBI	48 physiotherapists in hospital, mostly in ICU	Physiotherapy
Silva and collaborators; 2015 ⁴¹	Descriptive sectional study	MBI and Self Report Questionnaire to assess common mental disorders	130 nurses, technicians and nursing assistants in the ICU and coronary care unit of two large hospitals in Rio de Janeiro/RJ	Nursing Biology
Silva; 2015 ⁴²	Cross-sectional study	MBI, PHQ-9	2,940 healthcare professionals in FHS in Pandora/SP	Medicine
Silva and collaborators; 2015 ⁴³	Cross-sectional study	MBI, sociodemographic questionnaire	198 healthcare professionals with a university degree working in the Primary Health Care Network in Aracaju/SE	Medicine
Silveira and collaborators; 2016 ⁴⁴	Systematic review	Manual search with descriptors in databases	17 articles in the Medical Literature Analysis and Retrieval System Online, Latin American and Caribbean Literature in Health Sciences and Scientific Electronic Library Online databases	Medicine
Souza; 2017 ⁴⁵	Cross-sectional study	World Health Organization Quality of Life-100 (short version), sociodemographic questionnaire	664 nursing professionals from pediatric hospital units in three teaching hospitals in Belo Horizonte/MG	Nursing
Tironi and collaborators; 2016 ⁴⁶	Descriptive epidemiological study	MBI, sociodemographic questionnaire	180 intensive care doctors in five capitals (Porto Alegre/RS, São Paulo/SP, Salvador/BA, Goiânia/GO and Belém/PA)	Nursing Medicine Psychology Geography
Vasconcelos, Martino, França; 2018 ⁴⁷	Quantitative, descriptive, cross-sectional study	MBI, sociodemographic questionnaire, Beck's Depression Inventory (version 1)	91 nurses in the ICU of a university hospital in São Paulo/SP	Nursing
Vidotti and collaborators; 2018 ⁴⁸	Cross-sectional study	MBI, Demand-Control-Support Questionnaire	502 nursing professionals in a philanthropic hospital	Nursing
Zampieri; 2016 ⁴⁹	Editorial	-	ICU	Medicine
Zanatta, Lucca; 2015 ⁵⁰	Exploratory, descriptive study with cross-sectional design and quantitative approach	MBI, biosocial data form, non-participant observation script	188 doctors, nurses and nursing technicians at one children's onco-hematological hospital in São Paulo	Nursing Medicine
Zavalis and collaborators; 2015 ⁵¹	Quantitative, descriptive correlational study	Data collection instrument based on stressors, sociodemographic questionnaire	50 nursing professionals from hospital care in Rio de Janeiro/RJ	Nursing Nutrition Statistics

Audit: Alcohol Use Disorders Identification Test; FHS: Family Health Strategy; MBI: Maslach Burnout Inventory; NWI-R: Nursing Work Index-Revised; PHQ: Patient Health Questionnaire; SAQ: Safety Attitudes Questionnaire; HC: health centers; ICU: intensive care units

Results and discussion

Results show that several studies used no instruments that measure burnout syndrome, preferring tools aimed at other aspects of the worker's health^{17-19,22-24,27,31-33,37-39,44,45,51}. However, such articles were included in this research because they refer to the psychological suffering of healthcare professionals, relating it to burnout. We also observed that most studies pointed out the predominance of female healthcare professionals^{18,19-22,25,27-29,31,32,34,36,39,42,43,45-47,50,51}, mainly in nursing^{18,20-22,25,28,29,39,45,47,51}.

Of the 35 articles included, 27 (77%) used a quantitative approach, 2 (6%), qualitative, 5 (14%) were literature reviews and 1 (3%) was an editorial. Among the quantitative studies, 18 (67% of this subgroup) applied the MBI¹⁴ instrument, indicating it as the most used to measure burnout, which corroborates the statements of Tamayo and Troccoli¹³. These authors argue that, on one hand, the wide use of MBI is interesting to compare results, but on the other, it limits the understanding of the syndrome to what is asked in the instrument¹³.

Among the qualitative and quantitative research, 18 (62% of this subgroup) were conducted in hospitals or addressed this environment, and 11 (38%) focused or were conducted within primary care. The results reflect the tradition of addressing the well-being of healthcare professionals, especially in nursing and medicine, mostly in hospital settings, places with the highest occupational risk of causing mental illness in this population¹⁷.

The significant number of studies conducted in primary care is probably due to the protagonism of this sector, whose professionals are often overloaded, playing roles that go beyond the tasks defined for their position, with emphasis on nursing⁵². Further research on burnout in others workplaces is needed, as outpatient clinics, emergency care units, psychosocial care centers and other units of the Brazilian Unified Health System were not investigated in the articles found in this research.

Most authors in the sample had a bachelor in nursing, which is also the main profession surveyed, accounting for 24 (69%)

articles^{17,18,20-25,27-29,31-33,36,37,39,41,45-48,50,51} with at least one author from this field. Ten (29%) articles^{19,26,28,38,42-44,46,49,50} included at least one medical researcher, and 13 (37%)^{18,19,27,30,31,33-35,38,40,41,46,51} had authors from other professional categories. This is probably due to the tradition of research in hospital settings¹⁷ and the fact that the professionals working there are mostly nurses and physicians, professions exposed to additional stress factors⁵². In health care, the physician's work is traditionally the most studied regarding psychological impact⁵, but other studies report a special risk of nursing professionals developing disorders resulting from stress experienced at work⁵³.

Burnout syndrome is a work-related illness⁵⁴, thus, most of the research included in this study points to the importance of managers promoting interventional and preventive actions. They also conclude that we must diagnose the syndrome early, as many professionals are at high risk of developing it, associated with high risk of depression. Additionally, difficulties in hierarchical relationships and insufficient human and physical resources are stressful factors also related to psychosocial factors and young age. They also recommend further studies in the area.

Among the 35 articles in the sample, 29 (83%) concluded that working conditions are related to burnout and, of these, 13 (45%) suggest the need for management intervention in the work environment as a health measure. The literature points out that burnout treatment must consider the origin of problem, covering work itself, and personal and work organization aspects⁵⁵. Treating only one of its symptoms, such as depression or anxiety, would be palliative, since burnout is a collective and organizational phenomenon⁶.

Lack of autonomy at work can be related to burnout or other type of mental illness, being associated with task organization. Autonomy, understood as the possibility to express desire and subjectivity at work⁵⁶, would allow professionals to interfere in what causes them suffering. In this situation, illness occurs when the worker is forced to systematically go beyond their subjective limit⁵⁷. High work demand related to low autonomy elicits a higher risk of burnout⁵⁸. Unable to express the feelings mobilized by suffering at work, the subject must suppress them, which generates a process that Seligmann-Silva⁵⁹ calls "distress." This indicates

that intervention strategies may include increasing the professional's autonomy²⁵.

Finally, most studies^{18,20-22,25,28,29,39,45,47,51} revealed a predominance of women in nursing. However, this finding was not analyzed in any of the selected studies, showing that the impact of gender on illness and work dynamics has been neglected by researchers. The association between the predominance of women in nursing and care is historical⁶⁰ and has cultural marks, also impacting the choices of researchers. It has also been described in the literature how much women's double shift, the cultural tendency of devaluing female labor, and the hegemony of the medical discourse impact the mental health of these professionals⁵, being also stress factors.

Final considerations

The literature on burnout in healthcare professionals is still scarce, possibly because the International Statistical Classification of Diseases and Health-Related Problems, both in its 10⁶¹ and 11⁵⁴ versions, includes burnout not as a health condition, but as an occupational phenomenon, which can result in

underdiagnosis. Given the lack of research on the topic and the prevalence of small samples with low power of generalization, the numbers are uncertain; but the conclusions of many articles in this research point to a significant rate of burnout in health professionals.

The decline in quality of work and the increase in absenteeism, turnover, and number of occupational accidents harm companies financially and in terms of their image. Additionally, they cause social damage by reducing the number of adults in productive age due to illness and healthcare expenses. The impacts as a whole are wide-ranging, and may be personal, social, business, governmental, and on the public served.

Additional research concerning the prevalence of women and its impact is needed, as well as studies that cover professions other than nursing and medicine, since we need to know whether these areas are the most affected by burnout or if their rates seem higher because they are the most researched. We must also investigate environments other than hospitals and primary care, so that findings can be more consistent and generate more effective interventions to combat and prevent burnout in healthcare institutions.

References

1. Green MJ, Benzeval M. Ageing, social class and common mental disorders: longitudinal evidence from three cohorts in the West of Scotland. *Psychol Med* [Internet]. 2011 [acesso 16 set 2020];41(3):565-74. DOI: 10.1017/S0033291710000851
2. Goldberg D, Huxley P. *Common mental disorders: a bio-social model*. London: Tavistock; 1992.
3. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Arch Gen Psychiatry* [Internet]. 2005 [acesso 16 set 2020];62(6):593-602. DOI: 10.1001/archpsyc.62.6.593
4. Kessler RC, Birnbaum H, Bromet E, Hwang I, Sampson N, Shahly V. Age differences in major depression: results from the National Comorbidity Survey Replication (NCS-R). *Psychol Med* [Internet]. 2010 [acesso 16 set 2020];40(2):225-37. DOI: 10.1017/S0033291709990213
5. Martins LAN. A saúde do profissional de saúde. In: Marco MA, organizador. *A face humana da medicina: do modelo biomédico ao modelo biopsicossocial*. São Paulo: Casa do Psicólogo; 2003. p. 92-7.
6. Benevides-Pereira AMT. Burnout: o processo de adoecer pelo trabalho. In: Benevides-Pereira AMT, organizadora. *Burnout: quando o trabalho ameaça o bem-estar do trabalhador*. 4ª ed. São Paulo: Casa do Psicólogo; 2010. p. 21-91.
7. Karasek RA Jr. Job demands, job decision latitude, and mental strain: implications for job redesign. *Adm Sci Q* [Internet]. 1979 [acesso 16 set 2020];24(2):285-308. DOI: 10.2307/2392498

8. Benevides-Pereira AMT. Burnout, por quê? In: Benevides-Pereira AMT, organizadora. Op. cit. p. 13-20. p. 15.
9. Borges LO, Argolo JCT, Pereira ALS, Machado EAP, Silva WS. A síndrome de burnout e os valores organizacionais: um estudo comparativo em hospitais universitários. *Psicol Reflex Crít* [Internet]. 2002 [acesso 16 set 2020];15(1):189-200. DOI: 10.1590/S0102-79722002000100020
10. Benevides-Pereira AMT. O estado da arte do burnout no Brasil. *Rev Eletrônica InterAção Psy* [Internet]. 2003 [acesso 16 set 2020];1(1):4-11. Disponível: <https://bit.ly/2YxBivs>
11. Brasil. Ministério da Saúde, Organização Pan-Americana da Saúde. Doenças relacionadas ao trabalho: manual de procedimentos para os serviços de saúde. Brasília: Ministério da Saúde; 2001. Disponível: <https://bit.ly/3tg4Z2h>
12. Fabichak C, Silva-Junior JS, Morrone LC. Síndrome de burnout em médicos residentes e preditores organizacionais do trabalho. *Rev Bras Med Trab* [Internet]. 2014 [acesso 16 set 2020];12(2):79-84. Disponível: <https://bit.ly/3j8nkKa>
13. Tamayo MR, Troccoli BT. Construção e validação fatorial da Escala de Caracterização do Burnout (ECB). *Estud Psicol* [Internet]. 2009 [acesso 16 set 2020];14(3):213-21. DOI: 10.1590/S1413-294X2009000300005
14. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol* [Internet]. 2001 [acesso 16 set 2020];52:397-422. DOI: 10.1146/annurev.psych.52.1.397
15. Trigo TR, Teng CT, Hallar JEC. Síndrome de burnout ou estafa profissional e os transtornos psiquiátricos. *Rev Psiquiatr Clín* [Internet]. 2007 [acesso 16 set 2020];34(5):223-33. DOI: 10.1590/S0101-60832007000500004
16. Ercole FF, Melo LS, Alcoforado CLG. Revisão integrativa versus revisão sistemática. *Reme* [Internet]. 2014 [acesso 16 set 2020];18(1):9-11. DOI: 10.5935/1415-2762.20140001
17. Almeida LA, Medeiros IDS, Barros AG, Martins CCF, Santos VEP. Fatores geradores da síndrome de burnout em profissionais da saúde. *Rev Pesqui* [Internet]. 2016 [acesso 31 jul 2019];8(3):4623-8. DOI: 10.9789/2175-5361.2016.v8i3.4623-4628
18. Alves SR, Santos RP, Oliveira RG, Yamaguchi MU. Serviços de saúde mental: percepção da enfermagem em relação à sobrecarga e condições de trabalho. *Rev Pesqui* [Internet]. 2018 [acesso 18 out 2019];10(1):25-9. DOI: 10.9789/2175-5361.2018.v10i1.25-29
19. Atanes ACM, Andreoni S, Hirayama MS, Montero-Marin J, Barros VV, Ronzani TM *et al.* Mindfulness, perceived stress, and subjective well-being: a correlational study in primary care health professionals. *BMC Complement Altern Med* [Internet]. 2015 [acesso 16 set 2020];15:303. DOI: 10.1186/s12906-015-0823-0
20. Dorigan GH, Guirardello EB. Efeito do ambiente da prática do enfermeiro nos resultados do trabalho e clima de segurança. *Rev Latinoam Enferm* [Internet]. 2018 [acesso 31 jul 2019];26:e3056. DOI: 10.1590/1518-8345.2633.3056
21. Fernandes LS, Nitsche MJT, Godoy I. Associação entre síndrome de burnout, uso prejudicial de álcool e tabagismo na enfermagem nas UTIs de um hospital universitário. *Ciênc Saúde Coletiva* [Internet]. 2018 [acesso 14 maio 2019];23(1):203-14. DOI: 10.1590/1413-81232018231.05612015
22. Ferreira JS, Ribeiro KV, Caramuru PS, Hanzelmann RS, Velasco AR, Passos JP. Estresse e estratégias de enfrentamento em trabalhadores de enfermagem de uma unidade de saúde da família. *Rev Pesqui* [Internet]. 2017 [acesso 14 maio 2019];9(3):818-23. DOI: 10.9789/2175-5361.2017.v9i3.818-823
23. Garcia AB, Rocha FLR, Pissinati PSC, Marziale MHP, Camelo SHH, Haddad MCFL. The effects of organizational culture on nurses' perceptions of their work. *Br J Nurs* [Internet]. 2017 [acesso 31 jul 2019];26(14):806-12. DOI: 10.12968/bjon.2017.26.14.806
24. Garcia GPA, Marziale MHP. Indicadores de esgotamento profissional em trabalhadores da atenção primária à saúde. *Rev Bras Enferm* [Internet]. 2018 [acesso 31 jul 2019];71(supl 5):2334-42. DOI: 10.1590/0034-7167-2017-0530
25. Guirardello EB. Impacto do ambiente de cuidados críticos no burnout, percepção da qualidade do cuidado e atitude de segurança da equipe de enfermagem. *Rev Latinoam Enferm* [Internet]. 2017 [acesso 14 maio 2019];25:e2884. DOI: 10.1590/1518-8345.1472.2884
26. Hoppen CMS, Kissmann N, Chinelato JR, Coelho VP, Wenczenovicz C, Nunes FCL, Friedman G. Alta prevalência de síndrome de burnout em médicos intensivistas da cidade de Porto Alegre. *Rev Bras Ter Intensiva* [Internet]. 2017 [acesso 16 set 2020];29(1):115-20. DOI: 10.5935/0103-507X.20170017


27. Leite DF, Nascimento DDG, Oliveira MAC. Qualidade de vida no trabalho de profissionais do NASF no município de São Paulo. *Physis* [Internet]. 2014 [acesso 14 maio 2019];24(2):507-25. DOI: 10.1590/S0103-73312014000200010
28. Lorenz VR, Sabino MO, Corrêa Filho HR. Esgotamento profissional, qualidade e intenções entre enfermeiros de saúde da família. *Rev Bras Enferm* [Internet]. 2018 [acesso 14 maio 2019];71(supl 5):2295-301. DOI: 10.1590/0034-7167-2016-0510
29. Lorenz VR, Guirardello EB. The environment of professional practice and burnout in nurses in primary healthcare. *Rev Latinoam Enferm* [Internet]. 2014 [acesso 14 maio 2019];22(6):926-33. DOI: 10.1590/0104-1169.0011.2497
30. Martins LF, Laport TJ, Menezes VP, Medeiros PB, Ronzani TM. Esgotamento entre profissionais da atenção primária à saúde. *Ciênc Saúde Coletiva* [Internet]. 2014 [acesso 14 maio 2019];19(12):4739-50. DOI: 10.1590/1413-812320141912.03202013
31. Mattos AIS, Araújo TM, Almeida MMG. Interaction between demand-control and social support in the occurrence of common mental disorders. *Rev Saúde Pública* [Internet]. 2017 [acesso 11 jul 2019];51:48. DOI: 10.1590/s1518-8787.2017051006446
32. Maissiat GS, Lautert L, Dal Pai D, Tavares JP. Contexto de trabalho, prazer e sofrimento na atenção básica em saúde. *Rev Gaúcha Enferm* [Internet]. 2015 [acesso 14 maio 2019];36(2):42-9. DOI: 10.1590/1983-1447.2015.02.51128
33. Migowski ER, Piccoli JCJ, Quevedo DM. Qualidade de vida no trabalho: percepção de enfermeiros e técnicos em enfermagem de um hospital da Serra Gaúcha, RS, Brasil. *Mundo Saúde* [Internet]. 2016 [acesso 16 set 2020];40(2):189-98. DOI: 10.15343/0104-7809.20164002189198
34. Mota CM, Dosea GS, Nunes PS. Avaliação da presença da síndrome de burnout em agentes comunitários de saúde no município de Aracaju, Sergipe, Brasil. *Ciênc Saúde Coletiva* [Internet]. 2014 [acesso 14 maio 2019];19(12):4719-26. DOI: 10.1590/1413-812320141912.02512013
35. Oliveira AM, Silva MT, Galvão TF, Lopes LC. The relationship between job satisfaction, burnout syndrome and depressive symptoms: an analysis of professionals in a teaching hospital in Brazil. *Medicine* (Baltimore) [Internet]. 2018 [acesso 16 set 2020];97(49):e13364. DOI: 10.1097/MD.00000000000013364
36. Dal Pai D, Lautert L, Souza SBC, Marziale MHP, Tavares JP. Violência, burnout e transtornos psíquicos menores no trabalho hospitalar. *Rev Esc Enferm USP* [Internet]. 2015 [acesso 16 set 2020];49(3):457-64. DOI: 10.1590/S0080-623420150000300014
37. Pegoraro PBB, Schaefer R, Zoboli ELCP. Desgaste psíquico-moral nos trabalhadores da atenção primária. *Rev Esc Enferm USP* [Internet]. 2017 [acesso 31 jul 2019];51:e03257. DOI: 10.1590/s1980-220x2016035203257
38. Pereira-Lima K, Loureiro SR, Crippa JA. Mental health in medical residents: relationship with personal, work-related, and sociodemographic variables. *Rev Bras Psiquiatr* [Internet]. 2016 [acesso 31 jul 2019];38(4):318-24. DOI: 10.1590/1516-4446-2015-1882
39. Portela NLC, Pedrosa AO, Cunha JDS, Monte LRS, Gomes RNS, Lago EC. Síndrome de burnout em profissionais de enfermagem de urgência e emergência. *Rev Pesqui* [Internet]. 2015 [acesso 16 set 2020];7(3):2749-60. DOI: 10.9789/2175-5361.2015.v7i3.2749-2760
40. Santos ER, Neri LV, Wanderley ELS. Síndrome de burnout em fisioterapeutas de um hospital público de alta complexidade da cidade do Recife, Pernambuco. *Acta Fisiátrica* [Internet]. 2018 [acesso 31 jul 2019];25(1):31-5. DOI: 10.11606/issn.2317-0190.v25i1a158832
41. Silva JLL, Soares RS, Costa FS, Ramos DS, Lima FB, Teixeira LR. Fatores psicossociais e prevalência da síndrome de burnout entre trabalhadores de enfermagem intensivistas. *Rev Bras Ter Intensiva* [Internet]. 2015 [acesso 14 maio 2019];27(2):125-33. DOI: 10.5935/0103-507X.20150023
42. Silva ATC. Esgotamento profissional e depressão em profissionais da estratégia saúde da família no município de São Paulo [tese] [Internet]. São Paulo: Universidade de São Paulo; 2015 [acesso 14 maio 2019]. DOI: 10.11606/T.5.2015.tde-27102015-084632

43. Silva SCPS, Nunes MAP, Santana VR, Reis FP, Machado Neto J, Lima SO. A síndrome de burnout em profissionais da rede de atenção primária, Brasil. *Ciênc Saúde Coletiva* [Internet]. 2015 [acesso 14 maio 2019];20(10):3011-20. DOI: 10.1590/1413-812320152010.19912014
44. Silveira ALP, Colleta TCD, Ono HRB, Woitas LR, Soares SH, Andrade VLÂ, Araújo LA. Síndrome de burnout: consequências e implicações de uma realidade cada vez mais prevalente na vida dos profissionais de saúde. *Rev Bras Med Trab* [Internet]. 2016 [acesso 16 set 2020];14(3):275-84. DOI: 10.5327/Z1679-443520163215
45. Souza EOR. Qualidade de vida dos profissionais de enfermagem que atuam em unidades pediátricas de hospitais escola do município de Belo Horizonte [dissertação] [Internet]. Belo Horizonte: Universidade Federal de Minas Gerais; 2017 [acesso 16 set 2020]. Disponível: <https://bit.ly/2Yy5NRY>
46. Tironi MOS, Teles JMM, Barros DS, Vieira DFVB, Silva Filho CM, Martins DF Jr et al. Prevalência de síndrome de burnout em médicos intensivistas de cinco capitais brasileiras. *Rev Bras Ter Intensiva* [Internet]. 2016 [acesso 14 maio 2019];28(3):270-7. DOI: 10.5935/0103-507X.20160053
47. Vasconcelos EM, Martino MMF, França SPS. Burnout and depressive symptoms in intensive care nurses: relationship analysis. *Rev Bras Enferm* [Internet]. 2018 [acesso 14 maio 2019];71(1):135-41. DOI: 10.1590/0034-7167-2016-0019
48. Vidotti V, Ribeiro RP, Galdino MJQ, Martins JT. Síndrome de burnout e o trabalho em turnos na equipe de enfermagem. *Rev Latinoam Enferm* [Internet]. 2018 [acesso 14 maio 2019];26:e3022. DOI: 10.1590/1518-8345.2550.3022
49. Zampieri FG. Brazilian intensivists: exhausted, but (still) happy with their choice? *Rev Bras Ter Intensiva* [Internet]. 2016 [acesso 14 maio 2019];28(3):215-6. DOI: 10.5935/0103-507X.20160047
50. Zanatta AB, Lucca SR. Prevalence of burnout syndrome in health professionals of an onco-hematological pediatric hospital. *Rev Esc Enferm USP* [Internet]. 2015 [acesso 14 maio 2019];49(2):253-8. DOI: 10.1590/S0080-623420150000200010
51. Zavalis A, Vianna LAM, Velasque LS, Schutz V, Machado DA. The influence of stress factors on the attention levels of nursing professionals. *Rev Pesqui* [Internet]. 2015 [acesso 31 jul 2019];7(4):3375-87. DOI: 10.9789/2175-5361.2015.v7i4.3375-3387
52. Brevidelli MM, Cianciarullo TI. Níveis de adesão às precauções-padrão entre profissionais médicos e de enfermagem de um hospital universitário. *Online Braz J Nurs* [Internet]. 2006 [acesso 31 jul 2019];5(1):106-15. DOI: 10.5935/1676-4285.2006291
53. Bianchi ERF. Enfermeiro hospitalar e o stress. *Rev Esc Enf USP* [Internet]. 2000 [acesso 16 set 2020];34(4):390-4. DOI: 10.1590/S0080-6234200000400011
54. World Health Organization. International statistical classification of diseases and related health problems (ICD): ICD-11 [Internet]. Geneva: WHO; 2018 [acesso 31 jul 2019]. Disponível: <https://bit.ly/2MpZCgx>
55. Kovalski DF, Bressan A. Síndrome de burnout em profissionais de saúde. *Saúde Transform Soc* [Internet]. 2012 [acesso 31 jul 2019];3(2):107-13. Disponível: <https://bit.ly/3th6EVn>
56. Dejours C. Por um novo conceito de saúde. *Rev Bras Saúde Ocup* [Internet]. 1986 [acesso 16 set 2020];14(54):7-11. Disponível: <https://bit.ly/3tmuDCw>
57. Dejours C. A loucura do trabalho: estudo de psicopatologia do trabalho. São Paulo: Oboré; 1987.
58. Tironi MOS, Nascimento Sobrinho CL, Barros DS, Reis EJFB, Marques Filho ES, Almeida A et al. Trabalho e síndrome da estafa profissional (síndrome de burnout) em médicos intensivistas de Salvador. *Rev Assoc Méd Bras* [Internet]. 2009 [acesso 8 out 2019];55(6):656-62. DOI: 10.1590/S0104-42302009000600009
59. Seligmann-Silva E. Trabalho e desgaste mental: o direito de ser dono de si mesmo. São Paulo: Cortez; 2011.
60. Donoso MTV. Gênero e suas possíveis repercussões na gerência de enfermagem. *Reme* [Internet]. 2000 [acesso 31 jul 2019];4(1-2):67-9. Disponível: <https://bit.ly/39FMDQL>
61. Organização Mundial da Saúde. Classificação estatística internacional de doenças e problemas relacionados à saúde: CID-10. 3ª ed. São Paulo: Edusp; 1996.

Layla Thamm Jarruche – Graduate (specialist) – thamm.layla@gmail.com

 0000-0001-9859-1811

Samantha Mucci – PhD – sammucci@gmail.com

 0000-0003-3809-8173

Correspondence

Layla Thamm Jarruche – Rua dos Jacintos, 372, apt. 66 CEP 04049-050. São Paulo/SP, Brasil.

Participation of the authors

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