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Burnout syndrome in healthcare professionals: an integrative review

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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.

The authors declare no conflict of interest.

Research

Mental disorders are characterized by anxiety symptoms, memory and concentration difficulties, fatigue, irritability, insomnia, and somatic complaints [1]. 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 disorders [3] and 15 to 18% lifetime of major depression [4]. 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 burnout [5].

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 attention [6]. The concept of stress is used in medicine to name the set of reactions to situations that require adaptive effort [5].

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 activity [7], 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 controversial [5]. 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 disease [11] – in the 1970s [8]. According to Fabichak, Silva-Junior and Morrone [12], 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 areas [12].

The Maslach Burnout Inventory (MBI) is the most widely used instrument to measure burnout [13] 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 work [14]. 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 studied [15]. Brazil has few publications on the topic [15], which highlights the importance of this research, considering the impact of the health professionals' illness on the well-being of patients, with social,

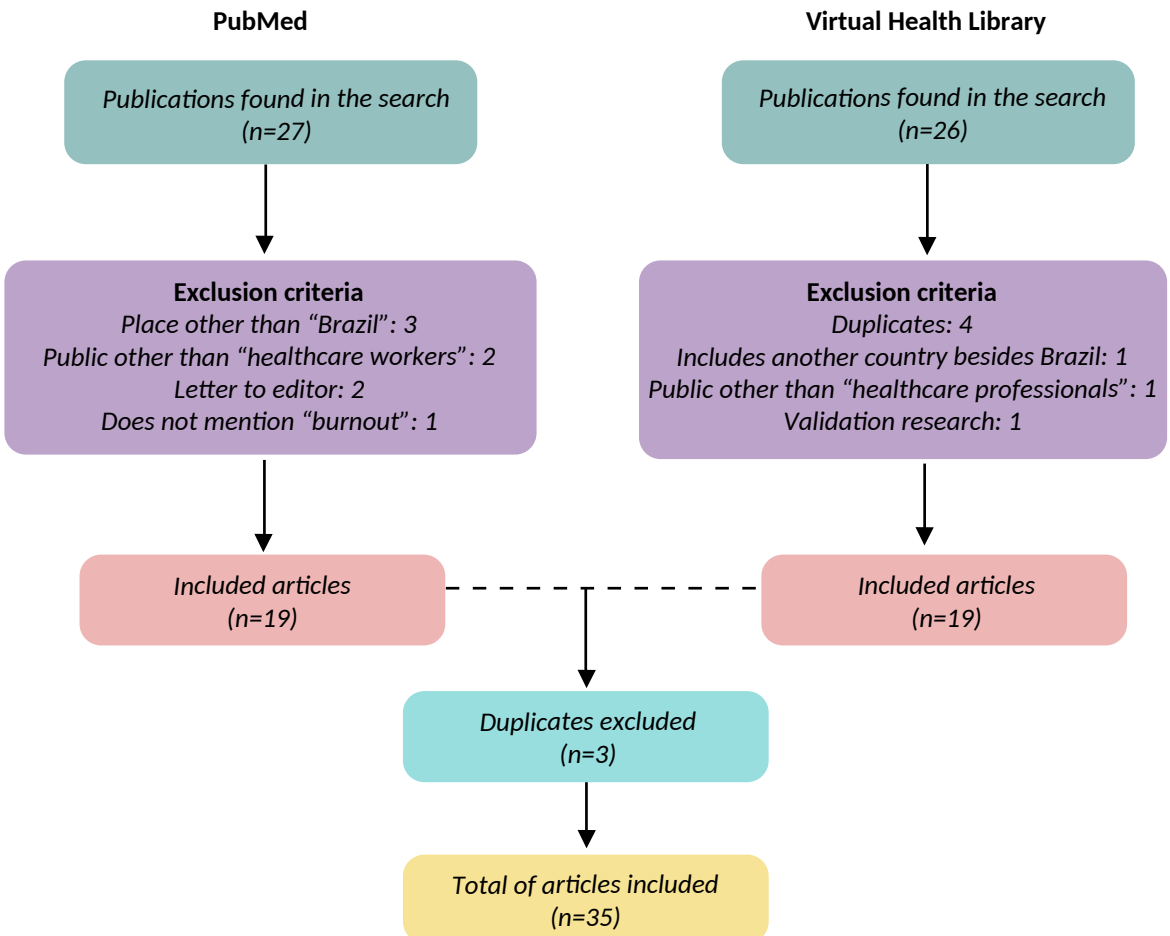
personal and institutional consequences. Thus, this study conducted an integrative review of the Brazilian production on psychological suffering related to burnout syndrome in healthcare professionals between 2014 and 2019.

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 conclusion [16]. 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 artciles in other formats (Figure 1).

Figure 1. Flowchart of article selection



Research

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 MBI [14] instrument, indicating it as the most used to measure burnout, which corroborates the statements of Tamayo and Troccoli [13]. 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 instrument [13].

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 population [17].

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 nursing [52]. 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 settings [17] and the fact that the professionals working there are mostly nurses and physicians, professions exposed to additional stress factors [52]. In health care, the physician's work is traditionally the most studied regarding psychological impact [5], but other studies report a special risk of nursing professionals developing disorders resulting from stress experienced at work [53].

Burnout syndrome is a work-related illness [54], 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 aspects [55]. Treating only one of its symptoms, such as depression or anxiety, would be palliative, since burnout is a collective and organizational phenomenon [6].

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 work [56], 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 limit [57]. High work demand related to low autonomy elicits a higher risk of burnout [58]. Unable to express the feelings mobilized by suffering at work, the subject must suppress them, which generates a process that Seligmann-Silva [59] calls "distress." This indicates

that intervention strategies may include increasing the professional's autonomy [25].

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 historical [60] 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 professionals [5], 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 10 [61] and 11 [54] 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.

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