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Psychological impacts and vulnerabilities of health professionals in the SARS-CoV-2 pandemic

Impactos psicológicos y vulnerabilidades de los profesionales de la salud en la pandemia del SARS-CoV-2

Impactos psicológicos e vulnerabilidades dos profissionais da saúde na pandemia de SARS-CoV-2

ABSTRACT

The COVID-19 pandemic highlighted the vulnerability of health professionals who are at the forefront in combating this crisis. Objective: To present the state of the art of potential risks faced by health professionals in the COVID-19 pandemic. Method: this is an integrative literature review study that followed the PICO strategy. The search for articles was performed in three electronic databases: Pubmed/Medline, Lilacs and SciELO. The descriptors "mental health", "Depression", "SARS-CoV-2" and "Health Personnel" were used with full texts, published from 2011 to 2021, and the Boolean operator AND was used. Results: 258 were found Twenty-six articles were selected to be read in full and 6 met the criteria of this review. Conclusion: Evidence suggests that psychological interventions aimed at promoting the mental health of staff with psychological problems need to be implemented immediately.

DESCRIPTORS: Mental Health; Depression; SARS-CoV-2; Health Personnel.

RESUMEN

La pandemia COVID-19 destacó la vulnerabilidad de los profesionales de la salud que están a la vanguardia en el combate de esta crisis. Objetivo: Presentar el estado del arte de los riesgos potenciales que enfrentan los profesionales de la salud en la pandemia de COVID-19. Método: se trata de un estudio de revisión integradora de la literatura que siguió la estrategia PICO. La búsqueda de artículos se realizó en tres bases de datos electrónicas: Pubmed / Medline, Lilacs y SciELO. Se utilizaron los descriptores "salud mental", "Depresión", "SARS-CoV-2" y "Personal de salud" con los textos completos, publicados de 2011 a 2021, y se utilizó el operador booleano AND. Resultados: se encontraron 258 Veinte- Se seleccionaron seis artículos para ser leídos en su totalidad y seis cumplieron con los criterios de esta revisión. Conclusión: La evidencia sugiere que las intervenciones psicológicas dirigidas a promover la salud mental del personal con problemas psicológicos deben implementarse de inmediato.

DESCRIPTORES: Salud Mental; Depresión; SARS-CoV-2; Personal de salud.

RESUMO

A pandemia de COVID-19 evidenciou a vulnerabilidade dos profissionais de saúde que estão na linha de frente no combate desta crise. Objetivo: Apresentar o estado da arte dos potenciais riscos enfrentados por eles na pandemia COVID-19. Método: trata-se de um estudo de revisão integrativa da literatura que seguiu a estratégia PICO. A busca dos artigos foi realizada em três bases de dados eletrônicas: Pubmed/Medline, Lilacs e SciELO. Foram utilizados os descritores "mental health", "Depression", "SARS-CoV-2" e "Health Personnel" com textos completos, publicados no período de 2011 a 2021, e foi usado o operador booleano AND. Resultados: foram encontrados 258 artigos. Vinte e seis artigos foram selecionados para serem lidos na íntegra e 6 atenderam aos critérios desta revisão. Conclusão: As evidências sugerem que intervenções psicológicas direcionadas para promover a saúde mental da equipe com problemas psicológicos precisam ser implementadas imediatamente.

DESCRIPTORES: Saúde Mental; Depressão; SARS-CoV-2; Pessoal de Saúde.

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INTRODUCTION

The COVID-19 pandemic has exposed the vital role that health professionals play in alleviating suffering and saving lives.¹ Esses profissionais são os principais intervenientes na gestão da pandemia COVID-19 e estão, inevitavelmente, na linha da frente da exposição ao vírus.² Due to its enormous impact on productivity, physical and mental health as well as its sequelae, all raise the urgent need for further exploration of the topic.³

Since December 2019, COVID-19 has spread rapidly around the world, affecting people in 210 countries and territories with the current count exceeding 53 million infected people and more than 1.300.000 deaths.⁴ In addition to the lives claimed globally, the pandemic has led to high levels of panic and anxiety around the world.⁵ Furthermore, they make up a remarkable pro-

portion of people who have contracted the disease, with 10% of cases confirmed in some reports.⁶

The deadly and uncontrollable nature of COVID-19, together with the relatively high rate of infection and mortality among healthcare professionals, can provoke feelings of anxiety and stress in the entire team.⁷ Issues such as social stigmatization, scarcity of personal protective equipment supplies, and heavy workloads can aggravate this situation.⁸ In this context, this pandemic is expected to have a substantial psychological impact on these professionals.⁹

Burnout syndrome is defined as a psychophysiological condition,¹⁰ which consists of emotional exhaustion that encompasses feelings of hopelessness, loneliness, depression, anger, impatience, irritability, tension and decreased empathy,¹¹ decreased energy, worry; increased susceptibility to illness, headache, nausea, muscle tension, back or neck

pain, and sleep disturbances.¹² Burnout is included in the 11th Revision of the International Classification of Diseases (ICD-11).⁴ According to the World Health Organization (WHO), Burnout is defined as a syndrome conceptualized as a result of chronic stress in the workplace that has not been successfully managed.⁴ It is characterized by three dimensions: a feeling of depletion of energy; feelings of work-related negativity or cynicism; and reduced professional effectiveness.⁷⁻⁸ Burnout specifically refers to phenomena in the occupational context and should not be applied to describe experiences in other areas of life.⁸

The New England Journal of Medicine researched burnout in healthcare. In the 2019 survey, 83% of respondents, who are clinical leaders and healthcare executives, saw this problem as “severe” or “moderate” in their workplace.¹¹ In 2016, this percentage was 96%, indicating a small improvement in this percen-

tage, but it is clear that the problem remains prevalent. This same research also considers burnout as a major concern for nurses: ^{9,11} 78% believe it is a serious or moderate problem. Burnout can have serious consequences for both patients and healthcare professionals. ¹³ The unfolding of this situation causes harm to physical and mental health, lack of motivation, absenteeism and also leads to deterioration in the quality of care provided by the affected team, with poor results for patients. ¹⁴ Several studies have found that high levels of burnout in healthcare professionals are associated with less safe patient care. These consequences impose immense costs on society. ¹² Health authorities need more information about the magnitude of this problem in this perspective this study is relevant to science by identifying the associated factors and thus preparing professionals for future outbreaks of infectious diseases, adapting sound interventions and implementing strategies to alleviate concerns and fears of health professionals. ¹⁵ This study aims to present the state of the art of potential health professional risks and vulnerabilities in the COVID-19 pandemic. ¹⁶

METHOD

This is an integrative literature review. Method that is characterized by gathering and synthesizing research results on a topic, in a systematic and orderly manner. The 6 phases of the RIL were respected, namely: the first phase comprised the elaboration of the guiding question. The research question was defined based on the PICO strategy, which provides for the definition of the participant (P), intervention (I), comparison (C) and outcome/outcomes (O). It is intended to answer the guiding question: What are the impacts of the pandemic (O) on physical and mental health (I) on health professionals (P) who are fighting the COVID-19 pandemic (C)? Through the PRISMA flowchart. ¹⁷ In the second phase, we sought to sample the li-

Burnout can have serious consequences for both patients and healthcare professionals. ¹³ The unfolding of this situation causes harm to physical and mental health, lack of motivation, absenteeism and also leads to deterioration in the quality of care provided by the affected team, with poor results for patients.

terature through articles in the Medical Literature Analysis and Retrieval System Online (MEDLINE/Pubmed), Latin American and Caribbean Literature in Health Sciences (LILACS) and Scientific Electronic Library Online (SciELO). In the third phase, data collection was understood using the following descriptors "Mental Health", "Depression", "SARS-CoV-2", "Health Personnel" they were defined from the vocabulary of Descriptors in Health Sciences (DeCS), for being a common terminology for research. These were combined with each other using the Boolean AND operator. The same search strategy was performed in all databases and/or electronic libraries. The inclusion criteria for the articles for analysis were: population group of health professionals, published between 2011 and 2021, available in full, in Portuguese, English, Spanish, dealing with the theme of chronic interpersonal emotional stress at work. Opinion articles, editorials, duplicate articles and publications that did not address the theme were excluded. The collection period took place from March to April 2021.

The fourth phase comprised the critical analysis of the selected studies, in search of scientific evidence and classification systems. The level of evidence identified in the analyzed articles was classified according to the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system, a system considered sensitive for grading the quality of evidence. In this system, the quality of evidence is described at four levels: high, moderate, low and very low. In this review, based on the classification adopted (GRADE system) to assess the quality of evidence, the risk of bias of randomized clinical trials of product technologies in relation to methodological limitations regarding the design or execution of individual studies was considered.

In the fifth phase, for the analysis of the synthesis of the results, an analytical framework was built that made it possible to gather and synthesize the key in-

formation of the studies. The collection instrument gathered the following information: title, author(s)/year of publication/country, objective, method, main results. And the last and sixth phase was the presentation of the integrative review.

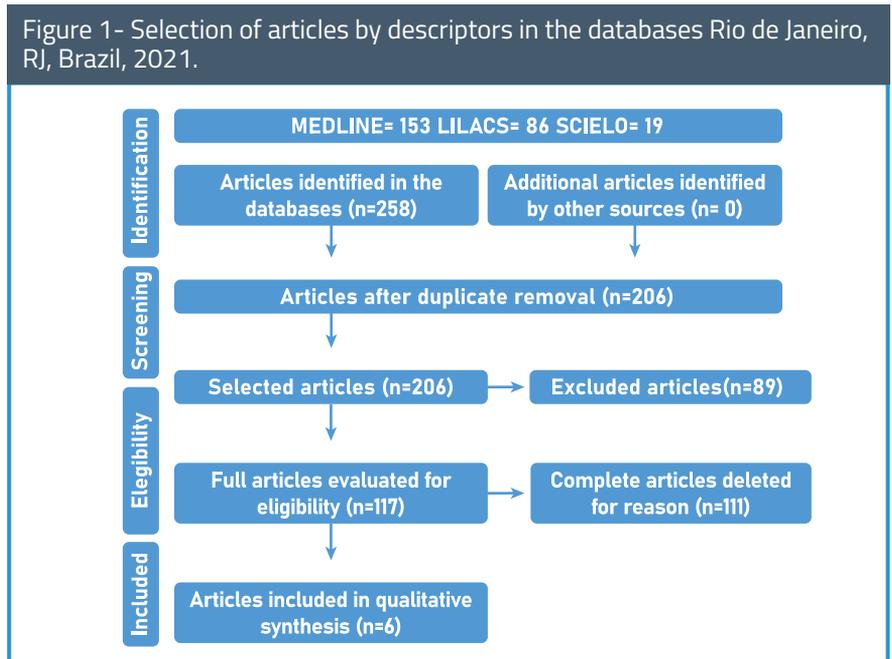
RESULTS AND DISCUSSION

A total of 258 studies were identi-

fied in these databases, as illustrated in Figure 1, which followed the PRISMA recommendations 17 to describe the literature search process. Of these, 52 duplicate articles were excluded, leaving 206 unique articles. Then, titles and abstracts were read, observing the inclusion and exclusion criteria. As a result of this process, 89 articles were excluded and another 111 articles met

the eligibility criteria. Then, the full and in-depth reading of these studies by two reviewers, independently, began. Any disagreements between the evaluators that emerged during this stage were worked out and resolved by consensus, which resulted in a final sample of 6 articles. The articles included in this synthesis, Table 1, were developed in six different countries: Brazil (n=one), United States (n=one), Spain (n=one), France (n=one) and Italy (n=two), Germany (n=one) covering, in its entirety, as subjects, all health professionals. As for the method, all researchers used the qualitative approach (n=6) to describe and analyze, in depth, the different dimensions. Another 3 studies were review studies, and in only one of the studies, the authors indicated that they used complementary quantitative and qualitative methods. Although this type of methodological design has been shown to be the most appropriate to reveal the various facets of the syndrome of professional exhaustion of human and social relations, this fact characterizes all articles as having a low level of evidence.

Health professionals are the first line of defense in fighting this disease.¹⁸



Source: The authors, 2021.

Chart 1- Synthesis of the results of the systematic review. Rio de Janeiro, RJ, Brazil, 2021.

TITLES	AUTHOR(S), YEAR / COUNTRY	OBJECTIVE	METHOD	RESULTS	LEVEL OF EVIDENCE
Burnout prevalence in pediatric nurses: a systematic review and meta-analysis	Pradas-Hernández L, et al, (2018) Spain	Analyze the reported prevalence of burnout, severity and risk factors to better understand the risk of emotional exhaustion, depersonalization and feelings of low personal fulfillment	Systematic review and meta-analysis	The following prevalence values were obtained: (i) emotional exhaustion, 31% (95% CI: 25–37%); (ii) depersonalization, 21% (95% CI: 11–33%); (iii) low personal achievement, 39% (95% CI: 28–50%).	Moderated
Health professionals facing the coronavirus disease (COVID-19) pandemic: what are the risks for their mental health?	El-Hage W, et al, (2020) France	The purpose of this article is to take stock of the risks associated with the exposure of caregivers to COVID-19 for their mental health.	Review Study	Caregivers are therefore at increased risk for anxiety, depression, exhaustion, addiction and post-traumatic stress disorder.	Low

Depression and anxiety in nursing professionals during the Covid-19 Pandemic	Santos KMR, et al., (2021) Brazil	To analyze the prevalence of symptoms of depression, anxiety and associated factors in nursing team professionals during the Covid-19 Pandemic	Qualitative study	Symptoms suggestive of mental disorders were related to female nursing professionals, color or mixed race, with monthly income less than 5 minimum wages who worked in the private sector, having symptoms of Burnout Syndrome	Very low
Psychosocial burden of healthcare professionals in times of COVID-19 – a survey conducted at the University Hospital Augsburg	Zerbini G, et al., (2020) Germany	Investigate the psychosocial burden of doctors and nurses depending on their degree of contact with COVID-19 patients.	Cross-sectional study	Nurses working on COVID-19 wards reported higher levels of stress, exhaustion and depressed mood, as well as lower levels of work-related achievement	Moderated
Psychological Adjustment of Healthcare Workers in Italy during the COVID-19 Pandemic: Differences in Stress, Anxiety, Depression, Burnout, Secondary Trauma, and Compassion Satisfaction between Frontline and Non-Frontline Professionals	Trumello C, et al., (2020) Italy	Investigate the psychological adjustment of health professionals during the peak of the COVID-19 Pandemic	Cross-sectional study	Overall findings indicate that the mental health of frontline health workers requires more consideration and that targeted prevention and intervention programs are needed.	Moderated
Impact of viral epidemic outbreaks on mental health of healthcare workers: a rapid systematic review and meta-analysis	Serrano-Ripoll, MJ et al., (2020) U.S.A.	Examine the impact of health care delivery during health emergencies caused by viral epidemic outbreaks on the mental health of health professionals	Systematic review and meta-analysis	Given the very limited evidence on the impact of interventions to address mental health problems on health professionals, the identified risk factors represent important targets for future interventions.	High
Source: The authors, 2021.					

Unfortunately, coping with this health emergency operates under precarious working conditions,¹⁹ due to the scarcity of biosafety equipment, infection control systems, lack of recognition programs and work incentives, and finally.¹⁵ These factors have an impact on your mental health, psychosocial stressors address the effects that can

manifest as stress, depression, anxiety due to insufficient information about the virus,⁵ the continuous care of patients with COVID-19, high workload, constant exposure to critical events such as death, fear of being infected and infecting their families and the consequences for their own health.² Studies have reported the presence of

psychiatric symptoms in a population without mental disorders, such as depression, anxiety, post-traumatic stress and worsening in patients with mental disorders.⁶ The psychological consequences weaken and incapacitate health workers, who are exposed to greater risk due to inadequate working conditions.⁷ If this situation is not conside-

red, the psychosocial consequences on your mental health are likely to be very serious,¹⁸ forcing many of them to quit their jobs. The impact does not affect all countries in the same way in Brazil, for example, with a deficient health system, economic, geographic and social problems due to accessibility; infrastructure deficiencies, lack of equipment and working conditions.^{14,16}

Inadequate management of health services generated by stress affects good performance, as well as influencing the quality of care and, consequently, putting patient safety at risk.¹⁹ COVID-19 exposes health personnel to physical, biological and psychological risks, without having the basic conditions to control, mitigate and face the serious and even irreversible consequences of the pandemic, so it can be considered an occupational disease, due to the psychological consequences.^{3,6} It is evident that this pandemic has serious psychosocial effects on health professionals, as they are directly linked to working conditions.^{11,15} If working conditions are inadequate, they will put their family's health at risk and, consequently, the impact on their mental health will be aggravated.²⁰ It is interesting to consider that some studies have shown that training with biosafety measures, correct application of infection control procedures, as well as the possession of personal protective equipment¹⁰ and the recognition of their efforts at the institutional and governmental levels,⁶ they can generate a sense of security and motivation to keep working.^{8,10,11}

A limitation of this study was the lack of research related to the topic,

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even though it is a subject that should be treated with utmost importance and urgency because it is a problem that affects not only health professionals, but also users who receive their care. It is recommended that more field research be carried out so that we have a greater dimension of the problem and thus devise strategies to mitigate the damage and benefit the community.

CONCLUSION

Many studies have focused on recognizing protective factors that help the performance of health professionals and improve their adaptation, as there is a great physical and mental demand for their services in times of crisis. However, this adaptability and resilience is due to the protection and support provided by adequate working conditions, with a reduction in psychosocial risk factors. Consequently, it is necessary to be aware of the specific needs of health workers and implement psychological intervention programs focused on crisis and post-trauma care and also carry out administrative and organizational changes to have an organized and quality health system, ensuring its sustainability and responsiveness despite the crisis. There is a consensus throughout the relevant literature that health professionals are at increased risk and elevated levels of stress, anxiety, depression and post-traumatic stress disorder, which can have long-term psychological implications. These include feelings of concern for one's health, fear of bringing the infection at home to family members or others, and not having quick access to occupational health testing. ■

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