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REVIEW ARTICLE

Psychosocial burden and Burnout Syndrome in health professionals in the fight against the COVID-19 pandemic

Carga psicosocial y síndrome de Burnout en profesionales de la salud en la lucha contra la pandemia COVID-19

Carga psicossocial e Síndrome de Burnout em profissionais de saúde no combate à pandemia de COVID-19

Roni Robson da Silva[1]
ORCID: 0000-0001-6010-6438
Leandro Andrade da Silva[1]
ORCID: 0000-0003-3213-5527
Elson Santos de Oliveira[1]
ORCID: 0000-0001-9377-0140
Milton Domingues da Silva Junior[1]
ORCID: 0000-0003-1163-9005
Maria Virginia Godoy da Silva[1]
ORCID: 0000-0003-3980-042X
Alexandro Alves Ribeiro[2]
ORCID: 0000-0002-6531-1753

[1]Universidade Veiga de Almeida. Rio de Janeiro, Brazil.
[2]Universidade Estácio de Sá. Rio de Janeiro, Brazil.

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Corresponding author:
Roni Robson da Silva
E-mail: rr.roni1@gmail.com

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Abstract

The aim was to provide information about the potential risks of Burnout syndrome and the exposure of health professionals in the COVID-19 pandemic. This is an integrative literature review study that followed the PICO strategy. The search for articles was performed in three electronic databases: PubMed/Medline, BVS and SciELO. The descriptors "mental health", "burnout", "coronavirus" and "health personnel" were used with full texts, published in the period from 2016 to 2021, in English, Portuguese and Spanish, and the Boolean operator AND was used. 168 articles. Thirty-five articles were selected to be read in their entirety and 10 met the criteria of this review. Evidence shows that health professionals on the front lines of coping with COVID-19 are more vulnerable to developing mental disorders, exhaustion, and suicidal ideation.

Descriptors: Mental Health; Burnout; Coronavirus; Health Personnel; Occupational Health.

Resumén

El objetivo fue brindar información sobre los riesgos potenciales del síndrome de Burnout y la exposición de los profesionales de la salud en la pandemia de COVID-19. Este es un estudio de revisión de literatura integradora que siguió la estrategia PICO. La búsqueda de artículos se realizó en tres bases de datos electrónicas: Pubmed / Medline, BVS y SciELO. Se utilizaron los descriptores "salud mental", "burnout", "coronavirus" y "personal de salud" con textos completos, publicados de 2016 a 2021, en inglés, portugués y español, y se utilizó el operador booleano AND. 168 artículos. Se seleccionaron 35 artículos para ser leídos en su totalidad y 10 cumplieron con los criterios de esta revisión. La evidencia muestra que los profesionales de la salud que se encuentran en primera línea para hacer frente al COVID-19 son más vulnerables a desarrollar trastornos mentales, agotamiento e ideación suicida.

Descriptores: Salud Mental; Burnout; Coronavírus; Personal de Salud; Salud del Trabajador.

Resumo

Objetivou-se fornecer informações sobre os riscos potenciais da síndrome de Burnout e da exposição de profissionais de saúde na pandemia de COVID-19. 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, BVS e SciELO. Foram utilizados os descritores “mental health”, "burnout", "coronavírus" e "health personnel” com textos completos, publicados no período de 2016 a 2021, no idioma inglês, português e espanhol e foi usado o operador boleano AND. Foram encontrados 168 artigos. Trinta e cinco artigos foram selecionados para serem lidos na íntegra e 10 atenderam aos critérios desta revisão. As evidências mostram que os profissionais de saúde da linha de frente de enfrentamento à COVID-19 apresentam maior vulnerabilidade de desenvolver transtornos mentais, exaustão e ideação suicida.

Descritores: Saúde Mental; Burnout; Coronavírus; Profissionais de Saúde; Saúde do Trabalhador.

Introduction

Burnout is known as the burnout syndrome, it is characterized by psychological exhaustion, depersonalization and reduced personal fulfillment at work. The term ''burnout'' was first introduced by the American psychologist, Herbert Freudenberger, in his research article in 1974, where he described it as the inability to cope with increasing work demands, manifested by headaches, sleep disorders, behavioral changes and reduced cognition.[1-5]

Burnout syndrome is defined as a psychophysiological condition, consisting of emotional exhaustion that includes feelings of hopelessness, loneliness, depression, anger, impatience, irritability, tension, and decreased empathy, decreased energy, worry, increased susceptibility to illness, headache, nausea, muscle tension, back or neck pain, and sleep disturbances. Burnout is included in the 11th Revision of the International Classification of Diseases (ICD-11). According to the World Health Organization (WHO), Burnout is defined as a syndrome conceptualized because of chronic stress in the workplace that has not been successfully managed. It is characterized by three dimensions: a feeling of depletion of energy; feelings of work-related negativity or cynicism; and reduced professional effectiveness. Burnout specifically refers to phenomena in the occupational context and should not be applied to describe experiences in other areas of life.[1,4,6-8]

A recent survey by the International Occupational Medicine Society Collaborative, representing occupational medicine societies in 42 countries, provides some estimates. The survey obtained burnout results from health professionals in 30 countries across the income scale. Different comparability issues preclude drawing firm conclusions from the survey, but focusing only on professionals reporting burnout, the survey reported proportions ranging from 17.2% (Japan) to 32% (Canada), with Austria and Ireland reporting proportions comparable to those in Canada, The New England Journal of Medicine did a survey of 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. In 2016, this percentage was 96%, indicating a small improvement in this percentage, but the problem remains prevalent. This same survey also considers burnout as a major concern for nurses: 78% believe it is a serious or moderate problem.[9-11]

The COVID-19 pandemic has exposed the vital role that health professionals play in alleviating suffering and saving lives. Health professionals are the main players in the management of the COVID-19 pandemic and are inevitably at the forefront of exposure to the virus. 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. 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. In addition to the lives claimed globally, the pandemic has led to high levels of panic and anxiety around the world. Furthermore, they make up a notable proportion of people who have contracted the disease, with 10% of cases confirmed in some reports. 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 medical staff. Issues such as social stigmatization, scarcity of personal protective equipment supplies, and heavy staff workloads can aggravate this situation. In this context, this pandemic is expected to have a substantial psychological impact on health professionals.[3,5,8,9,11-16]

Burnout can have serious consequences for both patients and healthcare professionals. The unfolding of this situation causes damage to physical and mental health, lack of motivation, absenteeism and leads to deterioration in the quality of care provided by the affected team, with poor results for patients. 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. 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.[8,9,13,17-20] This study aims to provide information about the potential risks of Burnout syndrome and the exposure of healthcare professionals in the COVID-19 pandemic.

Methodology

This is an integrative literature review. Method characterized by gathering and synthesizing research results on a topic in a systematic and orderly manner. 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 Burnout syndrome (O) on physical and mental health (I) in health professionals (P) who are fighting the COVID-19 pandemic (C)? Then, the keywords "mental health", "burnout", "coronavirus" and "health personnel" were defined from the vocabulary of the Health Sciences Descriptors (DeCS), as this is a common terminology for the research. These were combined with each other using the Boolean operator AND in databases and/or electronic libraries: Medical Literature Analysis and Retrieval System Online (MEDLINE/PubMed), Virtual Health Library (VHL) and Scientific Electronic Library Online (SciELO). 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 2016 and 2021, available in full, in Portuguese, English, Spanish, French, German and Italian, dealing with the theme of emotional stress chronic interpersonal at work. Opinion articles, editorials, duplicate articles, and publications that did not address the theme were excluded.

The collection period took place from February to April 2021. For data analysis, an analytical framework was built that made it possible to gather and synthesize key information from the studies.

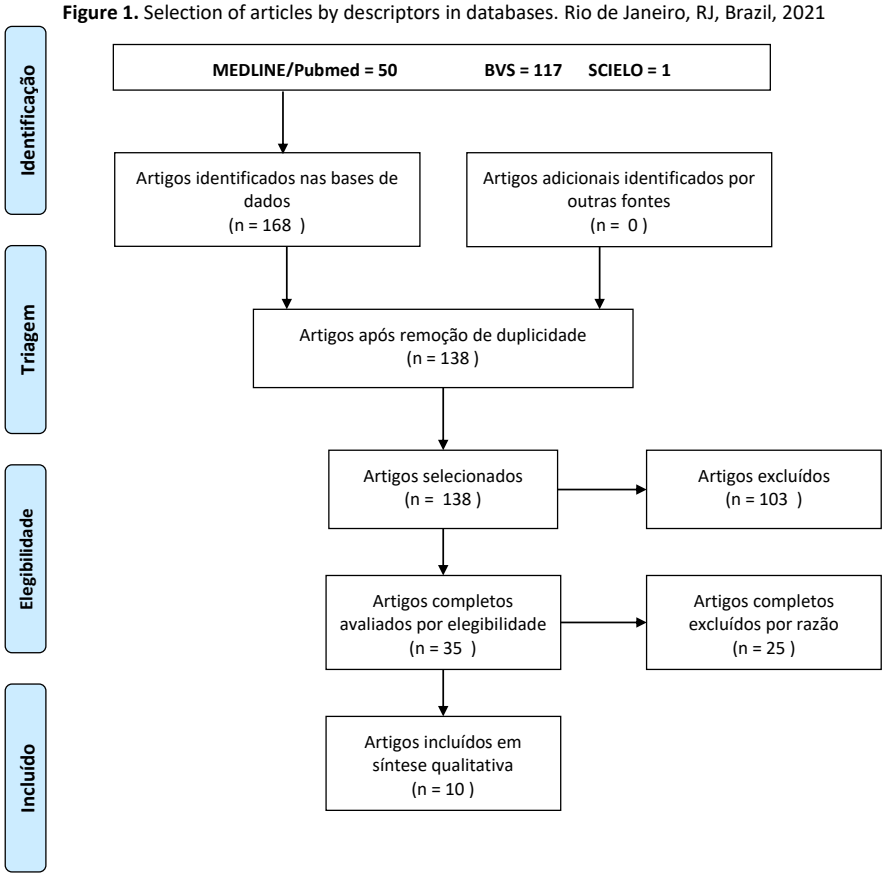
The collection instrument gathered the following information: title, author(s)/year of publication/country, objective, method, main results. The level of evidence identified in the analyzed articles was classified according to the Grading of Recommendations Assessment, Development and Evaluation (GRADE) 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, Chart 1. Evidence from randomized clinical trials starts with a high level and evidence from observational studies, with a low level.[21]

Chart 1. Levels of evidence. Rio de Janeiro, RJ, Brazil, 2021

Level	Definition	Implications
High	There is strong confidence that the true effect is close to that estimated.	It is unlikely that further work will modify the confidence in the effect estimate.
Moderate	There is moderate confidence in the estimated effect.	Future work may change the confidence in the effect estimate, with the possibility of modifying the estimate.
Low	Confidence in the effect is limited.	Future work is likely to have a major impact on our confidence in the effect estimate.
Very low	Reliance on effect estimation is very limited. There is an important degree of uncertainty in the findings.	Any estimate of effect is uncertain.

Source: Adapted from the Grading of Recommendations, Assessment, Development and Evaluation System (GRADE).[21]

Figure 1. Selection of articles by descriptors in databases. Rio de Janeiro, RJ, Brazil, 2021



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. Evidence from randomized clinical trials can be downgraded by lack of allocation confidentiality, lack of blinding, incomplete follow-up, selective reporting of outcomes and other limitations, such as early interruption of the study for benefit and insufficient information to assess whether there is a significant risk of bias. For each of these domains, the risk of bias is assessed, being classified as high risk, uncertain and low risk of bias.

Results and Discussion

A total of 168 studies were identified in these databases, as illustrated in Figure 1, which followed the PRISMA[22] recommendations to describe the literature search process. Of these, 30 duplicate articles were excluded, leaving 138 unique articles. Then, titles and

abstracts were read, observing the inclusion and exclusion criteria.

As a result of this process, 103 articles were excluded, and another 35 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 10 articles. The articles included in this synthesis, Chart 2, were developed in six different countries: Brazil (n= two), United States (n= three), 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, most researchers used the qualitative approach (n= seven) to describe and analyze, in depth, the different dimensions in which Burnout Syndrome occurs. 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 proved to be the most appropriate to unveil the various facets of the syndrome of professional exhaustion of human and social relations, this fact characterizes all articles as being of low level of evidence.

Chart 2. 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
Preditores da Síndrome de Burnout em enfermeiros de serviços de urgência pré-hospitalar	Tomaz HC, et al., (2020) Brazil	To analyze the presence of Burnout Syndrome components and related factors in Family Health Strategy professionals.	Analytical cross-sectional study	High levels of burnout, moderate scores on the factors that make up resilience and low efficiency in the use of strategies to combat stressors.	Low
Prevalência de burnout em enfermeiras pediátricas: uma revisão sistemática e meta-análise	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 fulfillment, 39% (95% CI: 28–50%).	Moderate
Les professionnels de santé face à la pandémie de la maladie à coronavirus (COVID-19): quels risques pour leur santé mentale?	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
Depressão e ansiedade em profissionais de enfermagem durante a pandemia da covid-19	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
Professional Quality of Life and Mental Health Outcomes among Health Care Workers Exposed to Sars-Cov-2 (Covid-19)	Buselli R, et al., (2020) Italy	Identify the possible impact of contextual variables on the quality of professional life, represented by compassionate satisfaction in emergency care units COVID-19.	Cross-sectional study	Women showed greater trauma than men, while front staff and health assistants reported greater compassionate satisfaction.	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.	Moderate

Attending to the Emotional Well-Being of the Health Care Workforce in a New York City Health System During the COVID-19 Pandemic	Ripp J, et al., (2020) United States	Seek measures to protect the physical health and emotional well-being of frontline employees.	Observational study	Most important on the minds of frontline healthcare professionals working in potentially contagious conditions is personal safety.	Very low
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	To 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.	Moderate
Impact of viral epidemic outbreaks on mental health of healthcare workers: a rapid systematic review and meta-analysis	Serrano-Ripoll, MJ et al., (2020) United States	Examine the impact of health care delivery during health emergencies caused by viral epidemic outbreaks on the mental health of health workers.	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
COVID-19, Mental Health, and Suicide Risk Among Health Care Workers: Looking Beyond the Crisis	Reger MA, et al., (2020) United States	Analyze the long-term impacts of the COVID-19 pandemic on health professionals (health professionals).	Observational study	The mental health needs of health professionals, including burnout, depression, PTSD and suicide risk, should not be ignored.	Low

In the context of the global crisis caused by the COVID-19 pandemic, we know that healthcare professionals are the first line of defense in combating this disease.[23] Unfortunately, facing this health emergency operates in precarious working conditions,[13,16,19] due to the scarcity of biosafety equipment, infection control systems, lack of recognition programs and work incentives, and finally physical and psychological abuse and discrimination by patients.[24] These factors impact your mental health the study says. This is in line with the thinking about the known stressors in the work context that can be identified as psychosocial factors of work.[2] Another study addresses 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 on their own health.[25] The systematic review and meta-analysis has 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.[26] A cross-sectional study shows that psychological consequences weaken and incapacitate health workers, who are exposed to greater risk due to inadequate working conditions.[27] If this situation is not considered, the psychosocial consequences on your mental health are likely to be very serious,[28] 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.[14,24]

Another study indicates that the inadequate management of health services generated by stress affects good performance, as well as influences the quality of care and, consequently, puts patient safety at risk,[29] while another states that 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 psychological consequences.[30] It is evident that this pandemic has serious psychosocial effects on health professionals, as they are directly linked to working conditions.[31] In this sense, if working conditions are inadequate, they will put your family's health at risk and, consequently, the impact on your mental health will be aggravated.[32]

It is interesting to consider that some studies have shown that training with biosafety measures[33], correct

application of infection control procedures, as well as possession of personal protective equipment[30] and the recognition of their efforts at the institutional and governmental levels,[20] can generate a feeling of security and motivation to keep working.[31-32]

A limitation of this study was the lack of research related to the topic, even though it is a subject that should be treated with utmost importance and urgency[34], as this is a problem that affects not only health professionals, but also users who receive their care[35]. 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 carry out administrative and organizational changes to have an organized and quality health system, ensuring its sustainability capacity response 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.

References

1. García-Iglesias JJ, Gómez-Salgado J, Martín-Pereira J, Fagundo-Rivera J, Ayuso-Murillo D, Martínez-Riera JR, et al. Impact of SARS-CoV-2 (Covid-19) on the mental health of healthcare professionals: a systematic review. Rev. esp. salud pública. [Internet]. 2020 [cited 2021 may 19]; 23(94):e202007088. Available from: https://pubmed.ncbi.nlm.nih.gov/32699204/.
2. El-Hage W, Hingray C, Lemogne C, Yrondi A, Brunault P, Bienvenu T, et al. Health professionals facing the coronavirus disease 2019 (COVID-19) pandemic: What are the mental health risks?. Encephale. [Internet]. 2020 [cited 2021 may 19]; 46(3S). Available from: https://doi.org/10.1016/j.encep.2020.04.008.
3. Schwartz R, Sinskey JL, Anand U, Margolis RD. Addressing Postpandemic Clinician Mental Health: A Narrative Review and Conceptual Framework. Ann. intern. med. [Internet]. 2020 [cited 2021 may 19]; 173(12). Available from: https://doi.org/10.7326/m20-4199.
4. Piñar-Navarro E, Cañadas-De la Fuente GA, González-Jiménez E, Hueso-Montoro C. Anxiety and strategies for coping with stress used by first responders and out-of-hospital emergency health care staff before the COVID-19 pandemic. Emergencias (Sant Vicenç dels Horts). [Internet]. 2020 [cited 2021 may 19]; 32(5). Available from: https://pubmed.ncbi.nlm.nih.gov/33006842/.
5. Ripp J, Peccoralo L, Charney D. Attending to the Emotional Well-Being of the Health Care Workforce in a New York City Health System During the COVID-19 Pandemic. Acad med. [Internet]. 2020 [cited 2021 may 19]; 95(8). Available from: https://doi.org/10.1097/acm.0000000000003414.
6. Albott CS, Wozniak JR, McGlinch BP, Wall MH, Gold BS, Vinogradov S. Battle Buddies: Rapid Deployment of a Psychological Resilience Intervention for Health Care Workers During the COVID-19 Pandemic. Anesth. analg. [Internet]. 2020 [cited 2021 may 19]; 131(1). Available from: https://dx.doi.org/10.1213%2FANE.0000000000004912.
7. World Health Organization (WHO). Health EP. Mental health and psychosocial considerations during the COVID-19 outbreak. [Internet]. 2020 [cited 2021 may 19]. Available from: https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af_10.
8. World Health Organization (WHO). COVID-19: Occupational health and safety for health workers. [Internet]. 2021 [cited 2021 may 19]. Available from: https://www.who.int/publications/i/item/WHO-2019-nCoV-HCW_advice-2021.1.
9. Sarboozi Hoseinabadi T, Kakhki S, Teimori G, Nayyeri S. Burnout and its influencing factors between frontline nurses and nurses from other wards during the outbreak of Coronavirus Disease -COVID-19- in Iran. Invest. educ. enferm. [Internet]. 2020 [cited 2021 may 19]; 38(2). Available from: https://doi.org/10.17533/udea.iee.v38n2e03.https://creativecommons.org/licenses/by-nc-sa/4.0/.
10. Restauri N, Sheridan AD. Burnout and Posttraumatic Stress Disorder in the Coronavirus Disease 2019 (COVID-19) Pandemic: Intersection, Impact, and Interventions. J. Am. Coll. Radiol. [Internet]. 2020 [cited 2021 may 19]; 17(7). Available from: https://doi.org/10.1016/j.jacr.2020.05.021.
11. Reger MA, Piccirillo ML, Buchman-Schmitt JM. COVID-19, Mental Health, and Suicide Risk Among Health Care Workers: Looking Beyond the Crisis. J. clin. psychiatr. [Internet]. 2020 [cited 2021 may 19]; 81(5). Available from: https://doi.org/10.4088/jcp.20com13381.
12. Castells A. COVID-19: A pandemic of values. Gastroenterol. hepatol. [Internet]. 2020 [cited 2021 may 19]; 43(6). Available from: https://dx.doi.org/10.1016%2Fj.gastre.2020.06.001.
13. Bueno Ferrán M. Caring for the caregiver: The emotional impact of the coronavirus epidemic on nurses and other health professionals. Enferm. clín. (Ed. impr.). [Internet]. 2020 [cited 2021 may 19]; 30. Available from: https://doi.org/10.1016/j.enfcli.2020.05.006.
14. Santos KMR dos, Galvão MHR, Gomes SM, Souza TA de, Medeiros A de A, Barbosa IR. Depression and anxiety in nursing professionals during the covid-19 pandemic. Esc. Anna Nery Rev. Enferm. [Internet]. 2021 [cited 2021 may 19]; 25(spe):e20200370–e20200370. Available from: http://dx.doi.org/10.1590/2177-9465-ean-2020-0370.
15. Nishiyama JAP, Moraes RMR, Magalhães AMM de, Nicola AL, Trevilato DD, Oliveira JLC de. Labour, ethical and political dimensions of nursing staff sizing in the face of COVID-19. Esc. Anna Nery Rev. Enferm. [Internet]. 2020 [cited 2021 may 19]; 24(spe):e20200382–e20200382. Available from: https://doi.org/10.1590/2177-9465-ean-2020-0382.

16. Kannampallil TG, Goss CW, Evanoff BA, Strickland JR, McAlister RP, Duncan J. Exposure to COVID-19 patients increases physician trainee stress and burnout. PLos ONE. [Internet]. 2020 [cited 2021 may 19]; 15(8):e0237301. Available from: https://doi.org/10.1371/journal.pone.0237301.
17. Morgantini LA, Naha U, Wang H, Francavilla S, Acar Ö, Flores JM, et al. Factors contributing to healthcare professional burnout during the COVID-19 pandemic: A rapid turnaround global survey. PLos ONE. [Internet]. 2020 [cited 2021 may 19];15(9):e0238217. Available from: https://doi.org/10.1371/journal.pone.0238217.
18. Salazar de Pablo G, Vaquerizo-Serrano J, Catalan A, Arango C, Moreno C, Ferre F, et al. Impact of coronavirus syndromes on physical and mental health of health care workers: Systematic review and meta-analysis. J. affect. disord. [Internet]. 2020 [cited 2021 may 19]; 275. Available from: https://dx.doi.org/10.1016%2Fj.jad.2020.06.022.
19. Serrano-Ripoll MJ, Meneses-Echavez JF, Ricci-Cabello I, Fraile-Navarro D, Fiol-deRoque MA, Pastor-Moreno G, et al. Impact of viral epidemic outbreaks on mental health of healthcare workers: a rapid systematic review and meta-analysis. J. affect. disord. [Internet]. 2020 [cited 2021 may 19]; 277. https://dx.doi.org/10.1016%2Fj.jad.2020.08.034.
20. Dosil Santamaría M, Ozamiz Etxebarria N, Redondo Rodriguez I, Jaureguizar Albondiga-Mayor J, Picaza Gorrochategui M. Psychological impact of COVID-19 on a sample of Spanish health professionals. Rev. psiquiatr. salud ment. (Barc., Ed. impr.). [Internet]. 2020 [cited 2021 may 19]; 13:0. Available from: https://doi.org/doi:10.1016/j.rpsm.2020.05.004.
21. Mustafa RA, Santesso N, Brozek J, Akl EA, Walter SD, Norman G, et al. The GRADE approach is reproducible in assessing the quality of evidence of quantitative evidence syntheses. J. clin. epidemiol. [Internet]. 2013 [cited 2021 may 19]; 66(7). Available from: https://doi.org/10.1016/j.jclinepi.2013.02.004.
22. Page MJ, Moher D, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. PRISMA 2020 explanation and elaboration: updated guidance and exemplars for reporting systematic reviews. BMJ. [Internet]. 2021 [cited 2021 may 19]; 372(160). Available from: https://doi.org/10.1136/bmj.n160.
23. Nochaiwong S, Ruengorn C, Awiphan R, Ruanta Y, Boonchieng W, Nanta S, et al. Mental health circumstances among health care workers and general public under the pandemic situation of COVID-19 (HOME-COVID-19). Medicine (Baltimore). [Internet]. 2020 [cited 2021 may 19]; 99(26):e20751. Available from: https://dx.doi.org/10.1097%2FMD.0000000000020751.
24. Tomaz HC, Tajra FS, Lima ACG, Santos MM dos. Síndrome de Burnout e fatores associados em profissionais da Estratégia Saúde da Família. Interface (Botucatu, Online). [Internet]. 2020 [acesso em 19 de maio 2021]; 24(suppl 1). Disponível em: https://doi.org/10.1590/interface.190634.
25. Blake H, Bermingham F, Johnson G, Tabner A. Mitigating the Psychological Impact of COVID-19 on Healthcare Workers: A Digital Learning Package. Int. j. environ. res. public health (Online). [Internet]. 2020 [cited 2021 may 19];17(9). Available from: https://doi.org/10.3390/ijerph17092997.
26. Pradas-Hernández L, Ariza T, Gómez-Urquiza JL, Albendín-García L, De la Fuente EI, Cañadas-De la Fuente GA. Prevalence of burnout in paediatric nurses: A systematic review and meta-analysis. Alameddine M, editor. PLoS ONE. [Internet]. 2018 [cited 2021 may 19]; 13(4):e0195039. Available from: https://doi.org/10.1371/journal.pone.0195039.
27. Buselli R, Corsi M, Baldanzi S, Chiumiento M, Del Lupo E, Dell'Oste V, et al. Professional Quality of Life and Mental Health Outcomes among Health Care Workers Exposed to Sars-Cov-2 (Covid-19). Int. j. environ. res. public health (Online). [Internet]. 2020 [cited 2021 may 19]; 17(17). Available from: https://doi.org/10.3390/ijerph17176180.
28. Saqib A, Rampal T. Quality improvement report: setting up a staff well-being hub through continuous engagement. BMJ Open. [Internet]. 2020 [cited 2021 may 19]; 9(3). Available from: http://dx.doi.org/10.1136/bmjoq-2020-001008.
29. Trumello C, Bramanti SM, Ballarotto G, Candelori C, Cerniglia L, Cimino S, et al. 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. Int. j. environ. res. public health (Online). [Internet]. 2020 [cited 2021 may 19]; 17(22). Available from: https://doi.org/10.3390/ijerph17228358.
30. Taylor WD, Blackford JU. Mental Health Treatment for Front-Line Clinicians During and After the Coronavirus Disease 2019 (COVID-19) Pandemic: A Plea to the Medical Community. Vol. 173, Ann. intern. med. [Internet]. 2020 [cited 2021 may 19]; 20574–5. Available from: https://dx.doi.org/10.7326%2FM20-2440.
31. Rangachari P, L Woods J. Preserving Organizational Resilience, Patient Safety, and Staff Retention during COVID-19 Requires a Holistic Consideration of the Psychological Safety of Healthcare Workers. Int. j. environ. res. public health (Online). [Internet]. 2020 [cited 2021 may 19];17(12). Available from: https://dx.doi.org/10.7326%2FM20-2440.
32. Robson da Silva R, da Costa Lipari C, Silva Araujo M, Andrade da Silva L, Godoy da Silva MV, Serpa Franco A, Bertolossi Marta C, de Oliveira Larrubia E, Ribeiro Francisco MT, Santos de Oliveira E. Contribuições da Monitoria em Fundamentos de Enfermagem II na Formação Acadêmica de Estudantes de Enfermagem: Relato de Experiência. Global Acad. Nursing Journal. [Internet]. 2021 [acesso em 19 de maio 2021]; 2(1). Disponível em: https://doi.org/10.5935/2675-5602.20200079.
33. Robson da Silva R, Preissler das Neves M, Andrade da Silva L, Godoy da Silva MV, Leite Hipolito R, Bertolossi Marta C. Consumo de drogas psicoativas em contexto sexual entre homens gays como fator de risco para transmissão de HIV/Aids. Glob Acad Nurs [Internet]. 31º de dezembro de 2020 [citado 22º de junho de 2021];1(3):e57. Disponível em: https://globalacademicnursing.com/index.php/globacadnurs/article/view/98.
34. Silva RR da, Silva LA da, Silva MVG da, Neves MP das, Silva MM dos S da, Francisco MTR, Marta CB. Os impactos do Chemsex na saúde pública mundial: um estudo sobre uma perigosa prática sexual entre homens. SaudColetiv (Barueri) [Internet]. 29º de outubro de 2020 [citado 22º de junho de 2021];9(51):1920-5. Disponível em: http://revistas.mpmcomunicacao.com.br/index.php/saudecoletiva/article/view/177.
35. Silva RR da, Silva LA da, Souza MVL de, Silva MVG da, Neves MP das, Vargas D de, Hipolito RL, Souza DAC, Dutra V de C de A, Oliveira ES de, Lipari C da C, Garcia W, Cortes T, Mattos CM. Estresse de gênero minoritário e seus efeitos na saúde mental como fator de risco para depressão em pessoas trans: revisão da literatura. RSD [Internet]. 2021Mar.24 [citado 2021Jun.22]; 10 (3): e51610313693. Disponível em: https://rsdjournal.org/index.php/rsd/article/view/13693