

Post-COVID-19 sequelae in healthcare workers: biopsychosocial and spiritual analysis of suffering

Secuelas post-COVID-19 en trabajadores de la salud: análisis biopsicosocial y espiritual del sufrimiento

Sequelas pós-COVID-19 em trabalhadores da saúde: análise biopsicossocial e espiritual do sofrimento

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How to cite this article:

Voltarelli A, Marquez DDS, França CE, Andreazzi AG, Silva WR, Andreu JM, Silva PG, Santos Junior AA, Kitazawa EM, Pereira CR. Post-COVID-19 sequelae in healthcare workers: biopsychosocial and spiritual analysis of suffering. *Glob Acad Nurs.* 2025;6(Sup.2):e480. <https://dx.doi.org/10.5935/2675-5602.20200480>

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Submission: 07-05-2025

Approval: 08-09-2025

Abstract

This study examined the consequences of the COVID-19 pandemic, which has resulted in a series of significant impacts on healthcare workers, with implications extending beyond the strict physical domains. Given the widespread damage caused by COVID-19, attention is focused on healthcare professionals affected by the virus, analyzing the often-invisible aftereffects that emerge after infection. The research method was an integrative literature review, collected from PubMed, Google Scholar, and SciELO databases (2020-2025). The aim was to identify and analyze the biopsychosocial consequences and hidden suffering from post-COVID-19 in healthcare professionals. It is concluded that the post-COVID-19 consequences in healthcare professionals represent a complex biopsychosocial impact, characterized by persistent physical symptoms, emotional impairments, social isolation, and a spiritual dimension that may represent both resilience and hidden suffering. These aspects, often underestimated, compromise the quality of life and professional performance of these workers, highlighting the need for integrated interventions and ongoing support to mitigate these consequences.

Descriptors: COVID-19 Pandemic; Emotional Distress; Frontline Workers; Healthcare Professionals; Acute Post-COVID-19 Sequelae.

Resumen

Este estudio examinó las consecuencias de la pandemia de COVID-19, que ha tenido una serie de impactos significativos en los profesionales de la salud, con consecuencias que se extienden más allá del ámbito estrictamente físico. Dado el daño generalizado causado por la COVID-19, la atención se centra en los profesionales de la salud afectados por el virus, analizando las secuelas, a menudo invisibles, que surgen después de la infección. El método de investigación fue una revisión bibliográfica integradora, recopilada de las bases de datos PubMed, Google Scholar y SciELO (2020-2025). El objetivo fue identificar y analizar las consecuencias biopsicosociales y el sufrimiento oculto posterior a la COVID-19 en los profesionales de la salud. Se concluye que las consecuencias posteriores a la COVID-19 en los profesionales de la salud representan un impacto biopsicosocial complejo, caracterizado por síntomas físicos persistentes, deterioro emocional, aislamiento social y una dimensión espiritual que puede representar tanto resiliencia como sufrimiento oculto. Estos aspectos, a menudo subestimados, comprometen la calidad de vida y el desempeño profesional de estos trabajadores, lo que destaca la necesidad de intervenciones integradas y apoyo continuo para mitigar estas consecuencias.

Descriptores: Pandemia por COVID-19; Sufrimiento Emocional; Trabajadores de Primera Línea; Profesionales Sanitarios; Secuelas Agudas del COVID-19.

Resumo

Este estudo examinou os desdobramentos da pandemia de COVID-19, que resultou em um conjunto de impactos expressivos sobre os trabalhadores da saúde, cujas sequelas extrapolam os domínios estritamente físicos, diante dos danos generalizados ocasionados pela COVID-19, a atenção recai sobre os profissionais de saúde acometidos pelo vírus, analisando as sequelas muitas vezes invisíveis que emergem após a infecção. O método da pesquisa foi por revisão integrativa da literatura, coletadas das bases PubMed, Google Scholar e SciELO (2020-2025). Objetivou-se identificar e analisar as sequelas biopsicossociais e o sofrimento oculto pós-COVID-19 nos profissionais de saúde. Conclui-se que as sequelas pós-COVID-19 nos profissionais de saúde configuram um impacto biopsicossocial complexo, caracterizado por sintomas físicos persistentes, comprometimentos emocionais, isolamento social e uma dimensão espiritual que pode representar resiliência quanto de sofrimento oculto. Esses aspectos, frequentemente subestimados, comprometem a qualidade de vida e o desempenho profissional desses trabalhadores, evidenciando a necessidade de intervenções integradas e apoio contínuo para a mitigação dessas consequências.

Descritores: Pandemia por COVID-19; Sofrimento Emocional; Trabalhadores da Linha de Frente; Profissional da Saúde; Sequelas Agudas do Pós-COVID-19.



Introduction

Coronavirus Disease 2019, caused by the SARS-CoV-2 virus, was initially identified in December 2019 in Wuhan, China. The name indicates the year the disease was discovered. The COVID-19 pandemic has posed an unprecedented challenge to global public health in recent decades, profoundly affecting healthcare professionals, especially those directly involved in combating the disease. These workers, crucial to the care of the population, face not only the risk of infection but also a series of complex consequences that go beyond physical symptoms, encompassing emotional, social, and spiritual impacts. These factors relate to both the variety of policies implemented by governments and the responses achieved, directly impacting disease control and mitigation¹.

In the cases reported by health professionals, the border between life and death was considered delicate, involving not only the severity of the virus infection, but also social and emotional factors. Prejudice, stigma, and the rupture of social and emotional bonds contributed to individuals feeling isolated and helpless, developing feelings of depression and a pessimistic outlook on the face of the new reality they faced².

For data extraction and analysis, an integrative literature review was conducted, with studies collected from PubMed, Google Scholar, and SciELO databases, covering the period from 2020 to 2025, using the terms COVID-19 Pandemic, Emotional Distress, Frontline Workers, Healthcare Professional, and Contained Grief as descriptors. Therefore, the objective of this study was to identify and analyze the biopsychosocial sequelae, as well as the hidden suffering post-COVID-19, present in healthcare professionals.

Methodology

This study corresponds to an integrative literature review. The integrative review identifies the main researchers, differentiates scientific evidence from opinions, and presents current knowledge, helping to update health professionals and improve clinical practice³. The study was conducted under the PRISMA protocol guidelines, aiming to systematize the study results in a structured manner. The development process covered the period from 2020 to 2025 and consisted of five stages: formulation of the guiding question, literature search, careful selection of studies, critical analysis, and interpretation of the data obtained.

The bibliographic material was collected through a systematic search in PubMed, Google Scholar, and SciELO databases, employing combined strategies involving the descriptors: "COVID-19 Pandemic"; "Emotional Distress"; "Frontline Workers"; "Healthcare Professional"; "Acute Sequelae of Post-COVID-19". The time frame favored the most recent scientific production (2020-2025).

Inclusion criteria: original articles, freely available in full, and published in Portuguese, English, or Spanish. Texts that did not address a topic compatible with the scope of this study were excluded.

Based on the specific search strategy adopted for each database, 77 articles were initially identified and, after

applying the selection criteria and critical analysis, 16 articles were included and considered to compose this study entitled: "Post-COVID-19 Sequelae in Health Workers: A Biopsychosocial and Spiritual Analysis of Hidden Suffering".

After screening, 16 articles were selected for critical analysis, following the steps of: (1) identification of the research problem, (2) literature search, (3) data evaluation, (4) analysis and interpretation of results, and (5) knowledge synthesis. Data extraction considered: objectives, methodology, health interventions, and main findings.

Results and Discussion

The COVID-19 pandemic has had a profound impact on the mental health of healthcare professionals, intensifying emotional distress and burnout. Burnout has emerged as a prevalent phenomenon among teams, caused by increased workloads and constant exposure to biological risk during the pandemic. This has revealed the often-invisible mental suffering known as hidden suffering. Healthcare professionals have played an important role in recognizing and providing comprehensive care for these patients. Work has often acted as a protective factor, providing structure and meaning to life; however, the after-effects of COVID-19 and social isolation have intensified emotional and cognitive symptoms, highlighting the complexity of hidden suffering in mental health⁴.

In one study, patients were hospitalized, on average, 132±72 days after the onset of COVID-19 symptoms. Chronic fatigue stood out as the predominant complaint in 64% of cases, followed by arthralgia (51%), dyspnea (47%), mood depression (44%), anxiety (44%), sleep disorders (44%), gait difficulties (37%), and memory impairment (36%). Patients with periodontitis and COVID-19 have common risk factors, elevated levels of inflammatory markers, and the presence of the SARS-CoV-2 virus in the oral cavity, which increases the likelihood of developing severe forms of the disease⁵⁻⁷.

In a study⁸, Burnout Syndrome (BS) is characterized by feelings of failure, with the main symptoms being emotional exhaustion, depersonalization, and a lack of personal fulfillment. It is a condition that requires careful treatment and understanding. It is essential to emphasize the importance of an accurate and competent diagnosis to avoid common misconceptions, such as confusion between burnout and depression, especially in the early stages due to the similarity of symptoms. Burnout can be followed by depressive disorder.

In another research⁹, those affected by COVID-19 required appropriate, individualized, and safe treatment, and their early diagnosis and treatment were prevented by the risk or difficulty in accessing health services during the height of the contamination; as well as pregnant women, who required adequate care for the birth of their children; in addition to victims of various forms of violence and many other situations and particularities faced in the routine health care.

Frontline healthcare professionals caring for COVID-19 patients were also deeply affected by the imposed restrictions. They lived daily with excess deaths, facing



anxiety, physical and mental exhaustion, fear of contamination, and a sense of helplessness in the face of clinical complications and the loss of patients, coworkers, and family members. With the interruption and limitations in the dying process during the pandemic, care practices and protocols were adapted, creating alternatives. The use of information and communication technologies, such as phone calls, text messages, audio and video conferencing via cell phones and computers, became part of the routine in ICUs, enabling contact between patients, family members, and professionals and facilitating farewell rituals. Despite these strategies to facilitate contact and farewells in hospitals, restrictions after death remained in place throughout the pandemic. To avoid crowds, federal and local authorities adopted exceptional measures that limited funeral rituals, wakes were discouraged, and burials were carried out quickly, with sealed caskets. Thus, family members suffered the pain of not being able to accompany, care for, say goodbye to, and bury their loved ones^{10,11}.

Government measures for funeral services during the COVID-19 pandemic were analyzed, highlighting restrictions such as limiting wakes and expedited burials to avoid crowds. The study also discussed the social and cultural implications of these actions, which impacted traditional family mourning. The study addressed the emotional impact of the pandemic on the experience of death and mourning, emphasizing the pain of solitary mourning due to the ban on wakes and the impossibility of family support, aggravating the suffering of the bereaved. Regarding health professionals' therapeutic presence for the care of emotional disorders in the context of the pandemic, the study emphasized the importance of emotional support and qualified listening to minimize the psychological impacts caused by isolation, loss, and suffering, as well as psychological treatment¹²⁻¹⁴.

A study investigated the post-acute sequelae of COVID-19, Post-Acute Sequelae of SARS-CoV-2 Infection (PASC), which means Post-Acute Sequelae of SARS-CoV-2 Infection, in frontline healthcare professionals. The results showed that these workers had a high prevalence of persistent symptoms, such as fatigue, headaches, memory impairment, and emotional disorders, such as anxiety and depression. It was also observed that professionals with a previous psychiatric history had a higher risk of developing these sequelae. The study emphasized the need for continuous monitoring and psychological support strategies for these professionals, aiming to reduce the impact of acute

sequelae and emotional distress resulting from the pandemic¹⁵.

A study investigating the prevalence of post-traumatic stress disorder (PTSD) among physicians working on the front lines of COVID-19 care in the United States revealed that these professionals had a significantly higher incidence of symptoms consistent with PTSD compared to physicians not directly involved in pandemic care. Factors contributing to this increase included continued exposure to traumatic events, the need to make complex clinical decisions, and the constant fear of contracting the virus. The study highlights the importance of implementing psychological support strategies and specific interventions aimed at reducing underlying emotional distress in this professional population¹⁶.

The pandemic severely impacted healthcare professionals, who faced fear, discrimination, lack of resources, and changes in routine, exacerbating existing problems such as job insecurity and fragile mental health. Many reported profound suffering, social stigma, and a lack of adequate psychological support. Several professionals also died from COVID-19, intensifying the emotional impact and highlighting their lack of preparation to deal with death and its consequences.

Final Considerations

The COVID-19 pandemic has posed an unprecedented challenge for healthcare professionals, subjecting them not only to the direct risk of contamination but also to multifaceted biopsychosocial and spiritual suffering. Spiritual suffering, characterized by anguish related to existential questions, loss of meaning, doubts about beliefs, and internal conflicts, contributed to the emotional impact on these workers. Adverse working conditions, social stigma, limited mourning, and insufficient psychological support intensified these effects, highlighting the lack of institutional preparation to deal with death and its repercussions. The physical, neurological, and psychological consequences associated with high mortality, including among professionals themselves, highlighted the importance of implementing public policies and institutional strategies that promote integrated care, continuous assistance, and the appreciation of the mental health of these fundamental agents in confronting the pandemic. Therefore, it is essential to recognize the hidden suffering of these professionals and adopt effective measures that ensure adequate support for their recovery and well-being.

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