



## The mental health of nursing professionals in Intensive Care Units in the COVID-19 pandemic: An integrative review



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### ABSTRACT

The objective of this study is to analyze the scientific evidence on the health of intensive care nursing professionals in the period of the Covid-19 pandemic. This is an integrative literature review. The databases used were: SciELO, LILACS and VHL. 9 articles were selected for the construction of the study. The literature collected shows that the main psychological losses are high levels of anxiety, fear and depression. These losses in the face of the repeated routine of the pandemic scenario resulted in physical and mental exhaustion, reduced efficiency, mood swings, lack of job satisfaction, and health problems, thus fitting into the classic symptoms of Burnout syndrome. In view of this, the importance of research for the health team is noted, highlighting the nursing team, as well as the need to create public policies that provide urgent psychological support for intensive care nursing professionals.

**Keywords:** Nursing, Intensive Care Unit, COVID-19.

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## INTRODUCTION

The Intensive Care Unit (ICU) is a specific environment dedicated to care strategies focused on the recovery and rehabilitation of individuals with serious health problems who present imminent risk of death, so due to its complexity this space involves an advanced arsenal of technology that are reflections of the specialized knowledge of practices aimed at the recovery of the individual, based on a comprehensive understanding of the concepts of health and disease in force (Pinho; Saints; Kantorski, 2007).

The range of population that permeates ICUs is attended by multiprofessional and interdisciplinary teams, however, in most health institutions, there is currently a large number of nursing professionals, being numerically superior to professionals from other areas (Paschoa; Zanei; Whitaker, 2007).

Naturally, it is seen that patients and their families tend to have complex feelings in relation to the hospital-centric environment, which nourish feelings directly to the nurses, often resulting in anguish and confusion for these professionals. (Nogueira Martins, 2003).

Nursing as a social practice has been constructed and goes beyond its interpersonal relationships between individuals, encompassing the provision of comprehensive care, as it is related to the intersubjective and relational set of this care. It is observed that this construction occurs as a set of complex characteristics based on the historical, political and social moment, in the case of the form of structuring and disposition of this health offered (Pinho; Saints; Kantorski, 2007).

Currently, we have scenarios from several studies that seek to correlate the ambiguity of the profession with the occupational stress that causes psychic suffering and seek to understand the mental health of nurses and nursing assistants (Nogueira Martins, 2003).

On February 25, 2020, according to the Ministry of Health, the first case of Covid 19 was confirmed, with the number of people sick with this disease increasing exponentially throughout Brazil, registering 3,057,470 confirmed cases and 101,752 deaths, configuring a public health emergency and panemia (Dantas, 2021).

A survey published in Brazil by the Association of Intensive Care Medicine Brasielria (AMIB) calculated that about 75% of Brazilians have the Unified Health System (SUS) as their only option, with the availability of ICU (Intensive Care Unit) beds being 22,844. In the scenario of the private health network with 25% of attendances on average, totaling 23,004 ICU beds, the inequality between the two networks is therefore visible (Ramos-Toescher *et al.*, 2020).

In the face of the advance of the pandemic, health services faced an overload, which can lead to a great demand for care related to Mental Health. This is due to the negative repercussions caused by the pandemic, which affect both the general population and health professionals (Dantas, 2021).

On the front line are nursing professionals, whose profession emerged as a social practice linked to the various aspects that make up human life, with a focus on prevention, promotion and rehabilitation of health. They form the largest professional category in the area and, because they are by patients' side 24 hours a day, they are more susceptible to the possible psychological impacts of the pandemic (Ramos-Toescher *et al.*, 2020).

Thus, through the above, this study aims to understand the implications related to the occupational health and mental well-being of nursing professionals who worked in the Intensive Care Unit in Brazil during the COVID-19 pandemic, seeking the main impacts and measures taken regarding the mental health of this category of fundamental importance for coping with COVID-19.

## **METHODOLOGY**

This study is a construction of an integrative literature review aiming to understand the implications related to the pandemic of the new coronavirus COVID-19 to the mental well-being of nursing professionals working in the Intensive Care Unit in Brazil. Integrative review plays a fundamental role in determining current knowledge on a specific topic, as it is conducted in order to identify, analyze and synthesize the results of independent studies on the same subject (Souza; Silva; Carvalho, 2010). This type of review has six phases in its construction process: elaboration of the guiding question; search in the literature for guided studies; data collection; critical analysis of the included studies; discussion of the results with the interpretation and synthesis of the results (Souza; Silva; Carvalho, 2010).

The guiding research question that allowed subsidies for the formulation of the descriptors of this study is: "What are the impacts of the experience in the ICU during the pandemic on the mental health of the nursing team?". The next step was the data collection that took place in August 2024, in the following databases: Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature in Health Sciences (LILACS) and Virtual Health Library (VHL). The following descriptors were used for the search: "Nursing team" AND "COVID-19", "Intensive Care Unit" AND "Well-being" AND "COVID-19".

The inclusion criteria established for this review were: original studies and clinical trials, with a time frame of five years; articles available in full in electronic databases or printed versions; studies published exclusively in Portuguese; doctoral or master's theses; descriptive studies and intervention studies that addressed the relationship between mental health during the COVID-19 pandemic in the nursing team in ICUs in Brazil, or that included nurses within their study sample.

The following exclusion criteria were defined: duplicate studies; articles of theoretical or bibliographic reviews; studies outside the established time frame; articles that were not aligned with the theme of the review; studies focused on professionals who are not part of the nursing team and



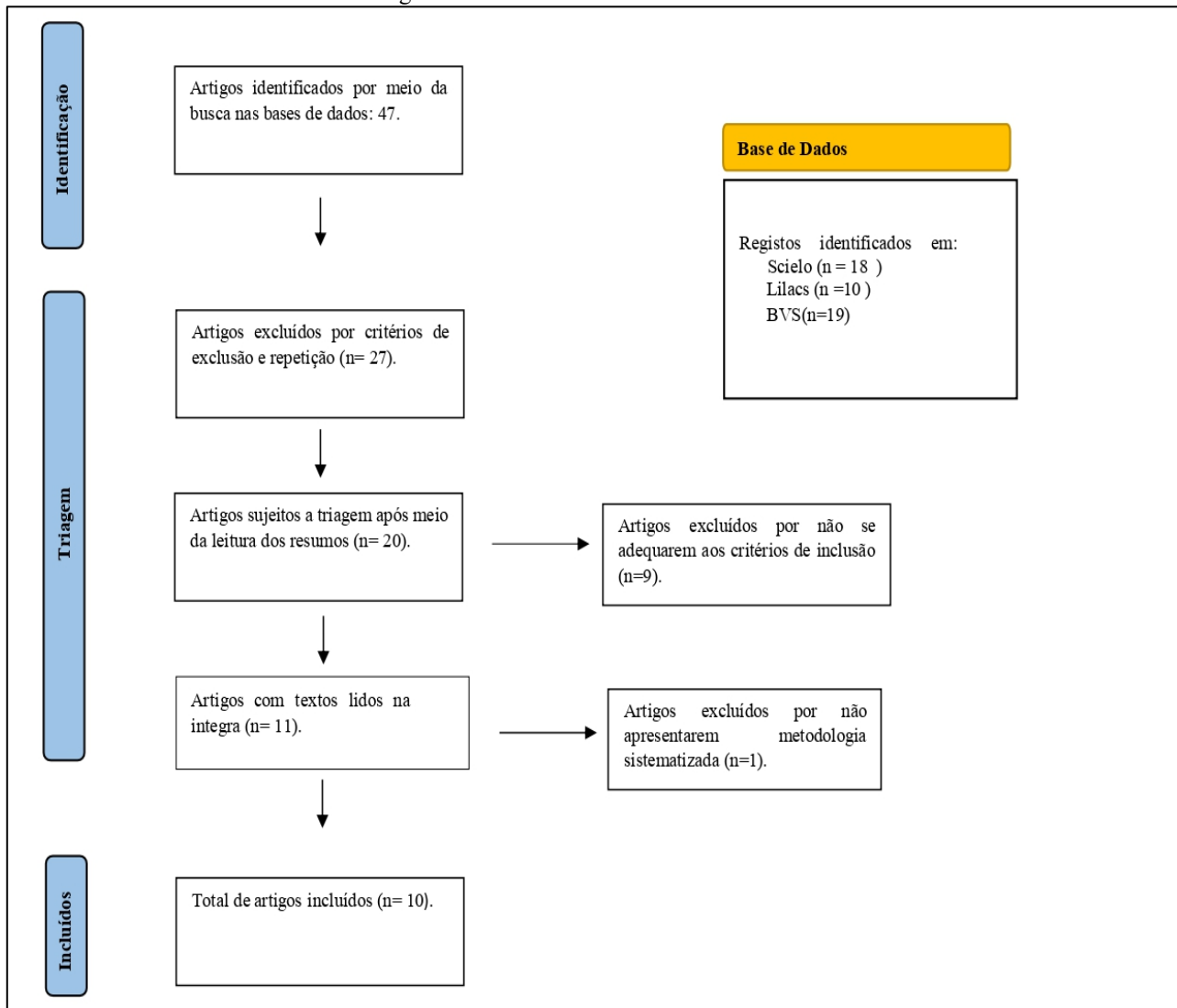
studies in the English language. The articles identified through the search strategy went through a six-step selection process described above. After formulating the guiding question, the titles and abstracts were analyzed to verify their relevance in relation to the research question for data collection, and were then analyzed based on the inclusion and exclusion criteria and selected for reading in full, being determined for their final inclusion in the review and building the synthesis of the results according to the interpretation for the review.

A spreadsheet was developed to extract data from the selected studies. The following data were recorded: author(s), year of publication, study objective, methodology, main results and conclusions. The included studies were critically analyzed, identifying the impacts on mental health based on the experience during the pandemic period of the nursing team.

## **RESULTS**

The review initially went through a process of identifying the articles in the databases with a total of 47 articles, consequently a screening of the articles found was carried out with a final sample of 27 studies. After careful analysis, only 11 articles remained for complete reading. Of these, a total of 10 articles were considered that met the eligibility criteria, considered the most pertinent and that would provide more relevant information for the integrative review, as described in the following flowchart:

Figure 1. Flowchart of records in databases.



Source: prepared by the authors themselves 2024.

Chart 01 - Description of the studies.

AUTHOR/YEAR OF PUBLICATION	TITLE	OBJECTIVES	METHODOLOGY	CONCLUSION
Dorneles <i>et al.</i> , 2023.	Burnout, ethical climate, and work organization in a COVID-19 intensive care unit: a mixed study	To analyze the association between burnout and perception of the ethical climate in nursing professionals of the Covid-19 Intensive Care Unit and the relationship with the organization of work from the perspective of the managers of these units.	Mixed study	The association between burnout and ethical climate and elements of work organization was verified
Barão <i>et al.</i> , 2022.	Professional exhaustion of the nursing team in an intensive care unit specialized in Covid-19.	To identify factors of psychic and emotional exhaustion of nursing professionals who work on the front line in an Intensive Care Unit specialized in the treatment of suspected and/or confirmed patients with COVID-19.	This is a descriptive, quantitative and cross-sectional study.	Safety measures are essential for nursing workers, so it is expected that this study will serve as a basis for the development of occupational health programs for this group of workers.

Cassiano; Oliveira; Silva Santos, 2023.	Covid-19: work process of the nursing team in an Intensive Care Unit.	The objective of this study was to understand the work process of the nursing team working in the Intensive Care Unit for the care of patients with covid-19.	Descriptive research, with a qualitative approach	Therefore, granting recognition to these professionals in the face of the work experienced and performed denotes social commitment and appreciation for those who made a difference in one of the biggest pandemics in history.
Conz, <i>et al.</i> , 2021.	Experience of nurses who work in the Intensive Care Unit with patients infected by COVID-19.	To understand the experience of nurses who work in the Intensive Care Unit with patients infected by COVID-19.	Qualitative research, anchored in the social phenomenology of Alfred Schütz.	The understanding of the nurses' experience showed that there was a need to adapt to this new way of caring, which includes the physical space, new institutional protocols, continuous use of protective equipment and differentiated care required by patients. This generated the need to live with situations that interfered with her health, as well as the motivation to carry out projects for her professional life, after the pandemic by the new coronavirus.
Dorneles <i>et al.</i> , 2023.	Burnout, ethical climate, and work organization in a COVID-19 intensive care unit: a mixed study	To analyze the association between burnout and perception of the ethical climate in nursing professionals of the Covid-19 Intensive Care Unit and the relationship with the organization of work from the perspective of the managers of these units.	Mixed study	The association between burnout and ethical climate and elements of work organization was verified
Humerez; Ohl; Silva, 2020.	Mental health of nursing professionals in Brazil in the context of the covid-19 pandemic: action by the Federal Council of Nursing	To reflect on the mental health of Brazilian nursing professionals in the context of the COVID-19 pandemic.	Intervention project	To achieve this objective, the Mental Health Nursing Care project was developed for nursing professionals in the pandemic. After the first thirty days of consultations, the most emerging feelings were: anxiety, fear, ambivalence, depression and exhaustion.
Ishigami <i>et al.</i> , 2024.	Anxiety and depression in Covid-19 ICU health workers at a referral hospital.	OBJECTIVE: To evaluate the prevalence of anxiety and depression among Intensive Care Unit (ICU) workers who provide care to patients suspected or confirmed for COVID-19 in a referral hospital in Pernambuco, Brazil.	This is a descriptive, quantitative, cross-sectional study.	It is concluded that ICU health professionals are suffering, which may have worsened due to the intensification of work caused by the pandemic, and that prevention and mental health care policies are necessary in this context.

Serra <i>et al.</i> , 2022.	Burnout Syndrome in COVID-19 Intensive Care Nursing Professionals	This study aimed to investigate Burnout Syndrome (BS) and associated factors in nursing professionals working in intensive care units (ICU) of the public service during the COVID-19 pandemic	Experimental study.	The results showed BS (Burnout Syndrome) in nursing professionals and that new risk factors were added with the advent of the pandemic.
Fenzke, 2023.	Level of anxiety and psychosocial factors in intensive care healthcare professionals	OBJECTIVE: To analyze the factors associated with the levels of trait anxiety and status of health professionals working in intensive care units of a teaching hospital in southern Brazil.	This is a cross-sectional and analytical research, with a quantitative approach.	It was concluded that there are psychosocial risks in the work environment and are associated with an increase in the level of trait and state anxiety, so it is relevant to develop interventions in occupational health to protect the mental health of health professionals and to improve their quality of life.
Vieira <i>et al.</i> , 2022.	Burnout and resilience in intensive care nursing professionals in the face of COVID-19: a multicenter study.	To analyze the relationship between the dimensions of <i>Burnout</i> and resilience in the work of intensive care nursing professionals in the COVID-19 pandemic, in four hospitals in Southern Brazil.	This is a multicenter, cross-sectional study.	Resilience interferes in the emotional exhaustion and low professional achievement domains of <i>Burnout</i> . Emotional exhaustion is conducted through minor psychic disorders, with an impact on the physical and mental health variables of workers. The development of resilience at the institutional level should be fostered in order to moderate illness.

## DISCUSSION

A study carried out in 3 university hospitals in Rio Grande do Sul, during the pandemic, reveals that the prevalence of 10% is burnout and 24.5% is the perception of a negative ethical climate, which is subsidized by overload, fatigue in the working hours carried out by means, tension, fear, and stress, which emerged from the consequences of the organization and work relations in the ICUs, covid-19 (Dorneles et al, 2023). With the advent of burnout syndrome, there is an emphasis on factors and symptoms related to emotional exhaustion, depersonalization, and low professional fulfillment. The female gender, not having children, statutory bond, professionals who had COVID-19 and who declared wanting to leave the ICU environment, had the highest risk of the presence of burnout syndrome (Serra *et al*, 2022). Symptoms such as fear, stress, and anxiety have greater repercussions in the lives of nursing professionals, who have been configured as an unfolding of the fear of contaminating loved ones with the covid-19 virus (Viera; Vieira Junior; Bittencourt, 2023).

Naturally, with the sudden rise of changing care models, continuous use of PPE, new institutional protocols, new physical habituations and differentiated care for patients with Covid-19



in ICUs. This generated the need to live with situations that exhaust physical and mental health, involving constant situations of contamination, the severity of patients, the experience of illness of co-workers, the distance between family members and patients, including contact and identification of the body via cell phone. These situations caused many professionals to develop intense burnout, as the absence of perspectives, professional growth and the emotional exhaustion involved in care amplified the desire to leave the profession (Conz *et al.*, 2021).

In this environment, another fact that most closely corresponds to the sustainability of frequent burnout symptoms was the association between working both shifts (day and night), absent or ineffective rest moments, and the sum of the presence of depressive symptoms. Since then, there has been a worsening of ICU health professionals who are suffering, due to the intensification of work through the pandemic, and the absence of prevention and mental health care policies that are necessary in this context (Ishigami *et al.*, 2024).

At the height of the expansion of covid-19, nursing professionals struggled and exhausted themselves physically and emotionally in the face of demands and negative results, resulting in burnout syndrome. Therefore, with the results with the outcropping of positive results, both through the vaccine and also in the efforts of professionals. The nurses were granted recognition in view of the work experienced and performed, causing a feeling of accomplishment and a reduction in the effects of the stresses of the period (Cassiano; Olive tree; Silva Santos, 2023).

A study carried out in a hospital in southern Brazil on anxiety in health professionals in the midst of the COVID-19 pandemic, in an Intensive Care Unit. It reveals that there are psychosocial risks in the work environment and are associated with the increase in the level of trait and state anxiety, therefore, it is important to note that the development of interventions in occupational health must occur in order to promote and protect the mental health of health professionals in order to improve the quality of care and reduce professional exhaustion (Fenzke, 2023).

The Federal Council of Nursing (COFEN) determined that the National Commission for Nursing in Mental Health should be provided by specialist nurses, masters or doctors in Mental Health, care for nursing professionals who are on the front line in the performance of the pandemic (Humerez; Ohl; Silva, 2020). The main feelings experienced in the consultations were: anxiety, due to the lack of PPE, pressure from managers and media news; stress, due to the large flow of patients and high number of deaths; fear of infection for themselves and family members; ambivalence of the population, which supported the work, but avoided contact; depression due to loneliness caused by family estrangement and the loss of colleagues; and emotional exhaustion due to the volume of work (Humerez; Ohl; Silva, 2020).

The professional support of fears and insecurities in the work routine is one of the tools that can be used to reduce the effects occasionally caused by the burnout syndrome in nursing





professionals in ICUs during the covid-19 period. The development of occupational health programs for this group of workers should be implemented in the institutions so that the incidence of this syndrome declines (Barão *et al.*, 2022). A survey carried out in four hospitals in Rio Grande do Sul exalts that the implementation of strategies that develop the resilience of professionals can guarantee positive responses in the face of adversity, and should be considered in the institutional context to reduce the appearance of Burnout in intensive care nursing teams (Vieira, 2022).

## CONCLUSION

Based on the results found in this review, we found the work overload of nurses due to the intensification of COVID-19 cases, which generated overcrowding in the health system. The psychological damage resulting from this overload manifested itself in various ways, with the main ones mentioned being the high levels of anxiety, fear and depression, which corroborate the development of severe psychological disorders, with Burnout being the disorder with the most focus in the studies analyzed.

In short, the pandemic evidenced the urgent need for psychological support policies for health professionals, especially nurses, who work on the front line, as well as the need for postvention work to monitor these professionals who went through the stress of the pandemic intensely, as there were only two articles that showed some intervention in order to try to minimize this psychological burden suffered by the nursing team.



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