



## Work stress in ICU nurses Estrés laboral en enfermeras UCI

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### ABSTRACT

The objective was to analyze work stress in nurses who worked in the ICU during the COVID-19 pandemic. The type of research used is descriptive documentary with bibliographic design, 16 articles were scrutinized that met the inclusion criteria. Intensive care nurses experience a higher risk of psychological burden, and lack a sense of professional satisfaction, constituting factors of job stress for nurses who worked in intensive care during the pandemic. The results of the different findings of the review determine that it is necessary to improve working conditions to support nurses who cared for patients during the pandemic. Job stress is high in critical care nurses, as the pandemic increased the workload and responsibilities of critical care nurses.

**Descriptors:** mental stress; psychological effects; occupational diseases. (Source: UNESCO Thesaurus).

### RESUMEN

Se plantea el objetivo de analizar el estrés laboral en enfermeras que laboraron en UCI durante la pandemia de COVID-19. El tipo de investigación utilizada es la descriptiva documental con diseño bibliográfico, se escrutaron 16 artículos que correspondieron con los criterios de inclusión. Las enfermeras de cuidados intensivos experimentan un mayor riesgo de carga psicológica, y carecen de una sensación de satisfacción profesional constituyéndose en factores del estrés laboral de los profesionales de enfermería que laboraron en cuidados intensivos durante la pandemia. Los resultados de los diferentes hallazgos de la revisión determinan que es necesario mejorar las condiciones de trabajo para apoyar a las enfermeras que atendieron a los pacientes durante la pandemia. El estrés laboral es alto en profesionales de enfermería que laboraron en el área de cuidados intensivos, puesto que la pandemia aumentó la carga de trabajo y las responsabilidades de las enfermeras de cuidados intensivos.

**Descriptorios:** estrés mental; efectos psicológicos; enfermedad profesional. (Fuente: Tesoro UNESCO).

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## INTRODUCTION

Stress is defined as a response of the organism to any demand made on it that is evidenced by symptoms such as increased blood pressure, release of hormones, increased frequency of breathing, muscle tension, perspiration and increased cardiac activity. So too, job stress can be defined as the physical, emotional, and harmful response that occurs when the demands of the job do not match the worker's abilities, resources, or needs (Barbosa-Torres et al. 2021).

When focusing on nursing, work stress is defined as any manifestation presented by the personnel in the face of situations that are highly demanding that arise in the daily practice of their activity, which show their coping capacity, in the face of the workload exerted in their work environment for complying with patient care (Del-Rosario-Retuerto et al. 2021). The intensive care unit presents a greater number of stressful manifestations, while the medical-surgical care unit, on the other hand, represents a greater work overload (Torrecilla et al. 2021).

One of the consequences of the pandemic has been the serious situation of work stress among health personnel, mainly due to the fact that the workload has had to be doubled and even tripled. The care of multiple critical patients and multiple complications has meant that health personnel no longer rest or have hours off or rest after work. The simultaneous and accelerated care of hundreds of daily cases that were attended to in clinics and hospitals began to show signs of impairment in the development of work activities and group performance of health personnel (Greenberg et al. 2021).

The mental health of healthcare workers is a frequent concern of researchers, even long before the pandemic. Anxiety and stress have a significant incidence in healthcare personnel (León-Reyna et al. 2021). Considering that by causing a massive influx of critically ill patients, the COVID-19 pandemic has radically changed professional practices in intensive care units (ICUs) (Poncelet et al. 2021). In this regard, (Yilmaz et al. 2021), comment that the COVID-19 pandemic is a major health problem associated with psychiatric illness in subgroups of healthcare workers with different sociodemographic characteristics. It is of utmost importance to develop individualized preventive and therapeutic psychiatric services for healthcare workers.

In the referred context, several studies have shown that high-stress situations that can increase occupational stress in workers; as is the case of COVID-19, although it is true that nursing personnel are used to working under pressure, in this situation inadequate working conditions, fear of contagion, feelings of frustration, estrangement from family, physical and mental fatigue, and many others that can affect their mental health trigger severe pictures of stress that affect not only their work performance but also their quality of life (León-Reyna et al. 2021).

Therefore; the COVID-19 pandemic has caused a lot of stress in the different health systems. It has affected the workforce, especially nurses. It has been evidenced that nurses are the ones who suffer from anxiety and stress from caring for and treating patients infected with COVID-19 virus. As they are in constant contact with patients, they are at greater risk of becoming infected and infecting their loved ones (García-García et al. 2020).

In view of the above, the objective is to analyze occupational stress in nurses who worked in the ICU during the COVID-19 pandemic.

## METHOD

The type of research used is descriptive documentary with bibliographic design, proposed for the characterization of the different factors that influence work stress in intensive care nurses, based on the results obtained from publications and scientific articles reviewed during the documentary analysis and literature review in order to define the level of work stress and the consequences on the mental health of health personnel.

The technique used is a documentary analysis based on the pre-selection and selection of scientific articles from the period 2020 - 2021, in which the main findings about the level of occupational stress of the nursing staff working in the intensive care area during the critical period



of COVID 19 are evidenced, with the application of bibliographic managers and search engines such as: Scopus, Scielo, Redalyc, PubMed, ResearchGate.

Sixteen articles corresponding to the inclusion criteria were scrutinized.

The instrument designed was a documentary record that allowed detailing the bibliographic reference, the finding obtained and the conclusions, to evaluate and discuss it with a key documentary support that facilitated the understanding of the factors of occupational stress.

The procedure for the analysis and collection of information began with a pre-selection of 50 articles that evaluated work stress in nursing personnel. Subsequently, those that only contained bibliographic information without relevance for the fulfillment of the research objective were excluded.

The second phase was the application of the inclusion criteria, specifically selecting research articles with representative samples and applied during the critical period of COVID-19 that focus on the level of care in the intensive care area.

The inclusion criteria are based on research articles that evaluate the levels of occupational stress during the COVID-19 pandemic in nursing staff working in ICU services, from indexed journals published during the period 2020 - 2021, papers in seminars and publications in books, presenting findings of stress factors and levels in a representative sample of nursing staff.

An analysis and review of the documents consulted was applied and a systematization of each bibliography was carried out to obtain the findings on occupational stress.

## **ANALYSIS OF RESULTS**

The findings found in clinical studies evaluated detail that work stress is caused by high workload, dissatisfaction and limited appreciation of the activity they perform in ICU. For (Pappa et al. 2020), high workload, insufficient resources and excessive stressors in the work environment can negatively affect the mental health of intensive care unit (ICU) nurses. The argument of (Shen et al. 2020), posit that these stressors are not effectively addressed, they may not only weaken their immune system and increase the risk of COVID-19 infection, but may also negatively affect the quality and safety of medical services.

A related factor is patient care and the special care they must receive in the ICU. In this regard, (Fernandez-Castillo et al. 2021), indicate that in the fight against COVID-19, nurses are front-line healthcare workers and, as such, have a great responsibility in providing the necessary specialized care to patients in intensive care units (ICUs). However, working conditions and emotional factors have an impact on the quality of care provided. The delivery of health care by intensive care nurses during the COVID-19 pandemic has shown strengths and weaknesses in the health care system. Nursing care has been influenced by fear and isolation, making it difficult to maintain the humanization of health care.

There are researchers who agree that increased workload, physical exhaustion, inadequate personal protective equipment, risk of infection, and frequent difficult ethical decisions regarding priorities of care have caused severe psychological stress in health care workers. Nurses in particular are disproportionately affected because they spend more time caring for patients with COVID-19 compared with other health care providers (Liu et al. 2020). Consequently, nurses because of the critical severity of COVID-19 were exposed to the highest levels of job stress, which negatively influenced their physical, psychological, and emotional health because of the challenges they faced in caring for patients and the low level of satisfaction in their work environment.

Experiences among critical care nurses caring for patients diagnosed with COVID-19 were categorized into five themes and subthemes. Emotions experienced were subcategorized into anxiety/stress, fear, helplessness, worry, and empathy. Physical symptoms were subcategorized into sleep disturbances, headaches, malaise, exhaustion, and shortness of breath. Care



environment challenges were subcategorized into nurse as surrogate, inability to provide a comforting human connection, dying patients, personal protective equipment (PPE), isolation, delay in care, changes in practice patterns, and language barrier. Social effects were subcategorized into stigma, divergent perception of the health care hero, additional responsibilities, strained interactions with others, and isolation/loneliness (Gordon et al. 2021).

The need for nurse leaders to implement intervention programs based on the psychological characteristics of nurses at different periods to promote nurses' health during this critical period. The psychological change process of frontline nurses spanned three stages, early, middle, and late stage. The psychological characteristics of each period were ambivalence, emotional exhaustion, and energetic renewal, respectively. Nurse leaders were anchors to facilitate the psychological adjustment of frontline nurses (Zhang et al. 2020).

We assessed the level of job stress in critical care nurses during the COVID-19 pandemic and its perceived factors. A total of 262 nurses working in adult intensive care units (ICUs) in Turkey during the COVID-19 pandemic constituted the sample. Data were collected using an online survey and the Perceived Stress Scale-14. The percentage of nurses with moderate level of job stress was 62%. High working hours and nurse-patient relationship, heavy workload and failure to treat patients were the main occupational stressors. The level of occupational stress was affected by gender, number of children, years of experience in intensive care and type of working hours (Şanlıtürk, 2021).

Nurses are exposed to various stressors due to the nature of their work. These include prolonged and continuous confrontations with critical and dying patients and feeling a high degree of responsibility. These events and their consequent destructive psychological and physiological effects can lead to more adverse consequences, such as various illnesses, absenteeism, reduced performance, impaired emotional function, decreased productivity, increased risk of anxiety, which are life-threatening (Mokhtari, 2020).

When contrasting the problem with international data, all agree on the problem of occupational stress of intensive care health personnel. In Latin America, research has yielded worrying data on the mental health of health personnel in 13 countries, revealing that 628 workers have suffered work stress above the usual level during the care of patients with COVID 19, and 397 felt a high work overload and the cause they attributed to it was having more working hours. A high percentage have not had psychological support from their workplaces for the treatment and management of work stress. Additionally, the International Council of Nurses (ICN) attributes increased workload, physical exhaustion, fear of infection risk and lack of protective equipment, added to complicated decisions in prioritizing health care, as factors that have caused high psychological stress in health care workers (Del-Rosario-Retuerto et al. 2021).

The findings detail high prevalence of work stress in nurses and nursing assistants, with high emotional exhaustion, the most significant risk and referred in different researches are high workload, due to the tasks they must perform, the limited time to strengthen the nurse-patient relationship, provide support to families and witness death, suffering without having the most appropriate tools and procedures.

The consequences of work stress in the nursing staff are the weakening of the quality of patient care, the effects are psychological and physiological, with lower performance and productivity, they are more prone to anxiety, loneliness and isolation, with recurrent sleep problems, digestive and musculoskeletal disorders, with higher risk of emotional disturbances, a low level of job satisfaction, although there is recognition of the importance of their functions as health professionals, despite the high levels of work stress and anxiety present in the most critical stage of the pandemic.

## **CONCLUSION**

Critical care nurses experience a higher risk of psychological burden, and lack a sense of professional satisfaction as factors in the job stress of critical care nurses during the pandemic.



The results of the different findings of the review determine that it is necessary to improve working conditions to support nurses who cared for patients during the pandemic. Job stress is high in critical care nurses, as the pandemic increased the workload and responsibilities of critical care nurses and led to increased health risks.

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## CONFLICT OF INTEREST

There is no conflict of interest with persons or institutions related to the research.

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