Global Journal of Sociology: Current Issues

Volume 9, Issue 2, (2025) 71-79

www.gjsoc.eu

Psychodynamic analysis of healthcare staff behavior in COVID-19 units

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Suggested Citation:
Hachelafi, H. (2025). Psychodynamic analysis of healthcare staff behavior in COVID-19 units. *International Journal of Emerging Trends in Health Sciences, 9*(2), 71-79. https://doi.org/10.18844/ijeths.v9i2.9928

Received March 12, 2025; revised from May 2, 2025; accepted from July 22, 2025.
Selection and peer review under the responsibility of Prof. Dr. Nilgun Sarp, Uskudar University, Istanbul

iThenticate Similarity Rate: 0%

Abstract

This study addresses the psychological and behavioral responses of healthcare personnel working in high-intensity clinical environments during a global health crisis. Although existing literature documents elevated stress among frontline professionals, limited attention has been given to the dynamic evolution of emotional and behavioral patterns across successive phases of a pandemic, particularly among night shift medical staff. The objective of this study was to explore how healthcare personnel experienced, interpreted, and adapted to prolonged occupational stress over time. A retrospective qualitative design was employed, involving healthcare personnel assigned to hospital triage and patient care units. Data were collected through semi-structured interviews conducted from the onset of the health crisis until mid-pandemic, focusing on emotional experiences and coping behaviors. The findings reveal fluctuating emotional trajectories characterized by adaptive emotional regulation in psychologically resilient individuals and anxiety depressive responses among psychologically vulnerable staff. These vulnerabilities were associated with the adoption of avoidance and compensatory behavioral strategies in the workplace. The study highlights the need for tailored psychological support systems that account for individual vulnerability and temporal changes in stress responses. Such interventions may enhance workforce resilience and improve occupational well-being during future health emergencies.

***Keywords*:** Behavioral adaptation; emotional responses; healthcare personnel; pandemic stress; psychological vulnerability.

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1. INTRODUCTION

The COVID-19 health crisis stands out for its surprising variables for all humanity, due to its high contagiousness, its morbidity, and the insufficient time to detach from emerging scientific knowledge on the subject. These are factors that are currently confusing minds on several fronts, and by the socio-media formulation of burlesque conspiracy theories, controversial clannishness about vaccines, among other factors. Thus, the contributions of disciplines related to occupational health psychology, from which researchers draw to understand worker behavior, refer to the study of working conditions and, concomitantly, the consideration of social and cultural aspects (Heise et al., 2025). Consequently, the holistic vision allows for a realistic approach through field studies and to decipher professional hazards, particularly those related to the care of patients infected by the virus. Thus, the behavioral projections of hospital staff were analyzed in a condition of difficult and exceptional professional performance in the face of the COVID-19 virus, and for almost two years, from the beginning of the pandemic to the latest manifestations of its mutants.

The COVID-19 epidemic constitutes an enigmatic global health event due to its origins, its unusual geostrategic challenges, and the fact that it poses a considerable number of health dilemmas with their economic and social repercussions. The nature of the epidemic, with its deadly viral characteristics and difficult-to-control infection pathways, is a factor that has exhausted both governors and those governed. Moreover, the quarantine requirements with border closures and travel bans are so many dark scenes that have a real-life, lived future, not one extracted from an imaginary narrative narrated by cinematographic films.

In light of epidemiological data, a scientific need has arisen to study the reality of the experiences of hospital staff. This allows us to monitor the nature of their behavior during the ongoing development of the pandemic, with the addition of social and cultural factors surrounding the professional environment, to draw lessons and develop an effective, reasoned, and realistic prevention policy to be adopted in the field.

1.1. Purpose of study

The scientific developments accompanying the escalation of the pandemic's incidence rates worldwide have been revealed by several interactive stations, whether in medical diagnosis and the discovery of various strains and modes of transmission of the infection, or in terms of techniques to reveal the specificities of the virus or to master therapeutic and preventive measures. All these health ramifications have been studied according to the economic status of the countries. It is, therefore, more commendable to make the scientific effort to understand the behavior of citizens or workers in the midst of a global health crisis and to shed light on behavioral phenomena through the microscope of occupational health psychology disciplines.

Research objectives can be summarized as follows:

- To study working conditions in hospital units designated to combat COVID-19.

- To study the workstation and the nature of the professional tasks assigned to the teams of healthcare workers caring for infected patients in COVID-19 hospital units. -Study the behavior of requisitioned hospital staff during the evolution of the COVID-19 pandemic.

2. METHODS AND MATERIALS

The geographical location of the study was determined at the 1er November University Hospital in Oran (Algeria's second largest metropolitan city), which was entrusted with the task of providing hospital care to people infected with the COVID-19 pandemic. The objective was to study working conditions and decipher the behavior of hospital staff across their various professional categories (administrative staff, medical and care teams, and support staff). Regarding the time factor, this was determined from the beginning of the declaration of the state of health emergency until its final evolution during the third wave with the ravages of the delta strain (from February 2020 to July 2021).

The study methods adopted in the research are the study of working conditions and their organization through the concepts of cognitive ergonomics, while emphasizing the study of real tasks carried out at workstations in care during the care of infected patients. The study of hospital staff behaviors was based on semi-structured clinical interviews during night shifts. The focus of the questions was to clarify the dilemmas posed by hospital staff and to study their extroverted demands on occupational health services throughout the spread of the viral epidemic. In other words, the clinical approach to studying work, "the clinic of work," was adopted in our research.

3. RESULTS

To review the study results, we categorized them into three stages based on the evolution of the epidemic and the statistics officially approved by the Ministry of Health and Population, and the adoption of the official list of medical on-call teams requisitioned at the Covid-19 hospital unit level for the care of infected patients.

a. The first stage, "Declaration of a State of Health Emergency," which was compounded by the vagaries of the first wave of the pandemic and the adoption of quarantine in its various forms. At this stage, due to the organization of work, the medical emergency department was identified as the first point of examination and referral of infected patients to the medical services designated for this medical mission.

However, with the increase in the number of infected patients, a medical support structure was allocated to support the efforts of general practitioners. At this critical stage, the daycare center reserved for the children of hospital employees was adapted and transformed into a second "Covid-19 Unit" for specialized examination and triage of suspected patients or those in a state of contamination and requiring a short period of hospitalization. The Covid-19 unit was headed by a medical specialist.

University hospital faculty members from all specialties were also requisitioned to supervise the four resident medical teams in the field. Medical on-call duty is calculated for a period of 24 hours and is rotated on average every two months.

Regarding working conditions, we note:

- the lack of a relaxation area for doctors.

- Poor hygiene in the kitchen and restrooms.

- Lack of protective equipment against the epidemic (medical masks), particularly during weekends and holidays.

The nature of the complaints raised by hospital staff can be summarized as follows: fear of transmitting the infection to loved ones, as the possibility of quarantine in hotels after shifts was inconsistent and non-existent for university hospital staff.

At the same time, a significant number of those exempted from on-call duty and from working in the Covid-19 units ended up in the occupational health department. The reasons for the exemptions and the justification given were based on chronic illnesses, particularly psychiatric illnesses.

What can be deduced from the semi-structured interview with hospital staff: "We are not doomed to work only nights, despite our distance from the emergency department specialty... It's an unfair administrative approach... We are facing death, while others are enjoying the COVID-19 bonus without any guarantee of field work..."

b. The second stage, "the fluctuation of the pandemic's statistical indicators," saw the transfer of the Covid-19 unit to a new hospital, "Nedjma Hospital," which has not been officially inaugurated. It is a hospital facility located dozens of kilometers outside the city center.

The work organization indicates the assignment of specialist physicians with nursing teams to work during the day, while the organizational structure for night shifts has been maintained, i.e., a university hospital

instructor supervising four resident physicians from various specialties, but with a reduction in the duration limited to 12 hours.

What is notable is the absence of complaints from medical or care teams about working conditions due to the nature of the new hospital structure. However, special attention is subject to the trivialization of the risk of contamination by hospital staff. Their distrust of the effectiveness of prevention measures and their indifference to clandestine visits from patients' relatives during late evenings. Furthermore, absenteeism among medical interns is the rule during religious holidays. This can be deduced from the semi-structured interview: "God is our protector... And if wearing a face mask wasn't mandatory, I would have done without it." - Comments from a stretcher-bearer interviewed after transferring a deceased patient to the morgue and without using protective equipment.

c. The third stage: "mutant viruses and available vaccination." In this sudden phase, the organization of work, coinciding with annual leave, saw a reduction in the size of the specialized medical team. The number of internists was reduced to two per team.

Working conditions are characterized by: - Reduction in the number of doctors and nurses.

- Inadequate treatment resources, particularly medical oxygen, with the consequent increase in deaths.

Similarly, the phenomenon of attacks against medical and nursing staff by patients' companions has significantly worsened.

This can be deduced from the semi-structured interview :

-"God is our guardian... Fear is omnipresent in our guts, preventing us from accepting vaccination, despite the availability of vaccines and the awareness-raising efforts deployed by occupational health to highlight its benefits." (comments from the healthcare staff).

-"We have become criminals in the eyes of the people, and we are arbitrarily accused of depriving patients of medical oxygen, and that we avoid seeing patients." (comments from the medical team of general practitioners and nurses).

- "We are tormented by the fact that we have to choose between patients who can be admitted to the medical intensive-care unit... Elderly people require careful and prolonged monitoring for weeks, and we may eventually lose them, unlike younger cases." (comments from specialist doctors).

4. DISCUSSION

Overall, the COVID-19 pandemic has created a "tsunami" of psychological emotions, as it has become an additional burden on the mental health of individuals, health practitioners, and societies (Li et al., 2024).

During the initial phase of the pandemic, the media turmoil that accompanied it presented a slideshow of imminent danger and morbid contagiousness. At the same time, information spread, depending on the diversity of its credibility, particularly that which was full of conspiratorial opinions or argued by the politicized manipulation of official statistics in various countries, all factors that consolidated the feeling of confusion and amplified the scientific ambiguity in addressing the epidemic. But also, "certain communication failures on the part of public institutions, particularly governmental institutions, aimed at avoiding panic, played a significant role in the spread of this misinformation" (Monnier, 2020). In such a short time, the health context has emerged as a public health dilemma and has been crowned with the acronym of health crisis. For information, the recent Chinese study carried out in 17 countries had summarized by statistics the prevalence of psychological symptoms after the traumatic event caused by the Corona pandemic, figures which fluctuate between 3% and 16% of patients (Underner & et al., 2021).

Naturally, the healthcare professionals who were at the forefront cracked, and cracks were opening up among themselves and within the various healthcare corporations. A category motivated to work in Covid-19 hospital units, as long as their psychological availability is cushioned by the effect of the morality of professional duty and the need to meet the vital demands of society during times of crisis. In addition, the

socio-financial support decided by the public authorities and the incentives of the government privilege (introduction of a monthly bonus, requisition of hotels to guarantee post-shift rest, establishment of an insurance policy for victims of the pandemic, etc.) and then the surge of solidarity shown by the population towards healthcare personnel (donations of food parcels, protective equipment, etc.). These are all factors that have reinforced the recognition of the effort made towards the community of hospital staff, and especially towards the corporation at the bottom of the socio-professional ladder (support staff). Thus, government or societal incentives have raised the standard of motivation for the majority of hospital staff described by the universal term "the soldiers of the white army". Then, and as such, "extensive research supports the benefits for the mental health and well-being of emergency health personnel facing COVID-19, believing that their organizational culture is characterized by the emphasis placed on psychological health and well-being of the leader towards his employees as a priority, which reassures the resources of individuals to cope with stressful situations" (McLinton & et al., 2018; Oweidat et al., 2025). Recognition of the work provided is the key to motivation and the source of pleasure at work.

However, the factors surrounding the pandemic and its specificity of contamination and spread did not exempt the presence of a professional group that was overcome by feelings of intense fear and anxiety in the face of the disease and convinced by the lack of recognition of the effectiveness of the means of protection, with the possibility of transmission of the infection to their loved ones. This psychological challenge is identified by international studies, which indicate that "the exposure of health professionals placed at the forefront of facing the pandemic are exposed to symptoms of depression and anxiety, and that 70% of them were exposed to cases of exhausting psychological suffering, and most of them to sleep disorders" (Vieira et al., 2020).

Based on exposure to this type of psychological disorder, the behavior of the health professional was embodied in the form of behaviors of escape from their workstation and the premeditated use of medical complacency formulas to dodge administrative requisitions and exemption from medical guards in the COVID-19 hospital units. Thus, the use of the process of "medicalization," whether verbal, plaintive, or behavioral action, was focused on the modulation of their mental state by the constitution of medical files with a psychiatric label or, in the second plan, by medical reports mentioning a sudden severity for carriers of chronic diseases (high blood pressure, diabetes).

The authenticity of medical justification in a demanding work situation can find legitimate resonance if it maintains its objective medical credibility in the face of vulnerable individuals. Thus, the review of on-call exemption files relied on the decisions of occupational physicians to determine their fitness for the position and was governed by a regulatory grid transcribed in accordance with ministerial instructions and establishing conditions incompatible with work in COVID-19 hospital units.

Consequently, the rejection of medical unfitness files with the obligation to work in Covid-19 units provoked a protest among the category of recalcitrant professionals, expressive and symbolic, but whose behavioral leitmotif was fear and anxiety.

The nature of the new work organization in the face of the pandemic was not without flaws that harmed the health system in general through the constitution of high-level medical teams, for example, the integration of university hospital teachers of magisterial rank. However, the approach of the scientific crisis committee and its administrative validity through the development of medical on-call lists and the requisition of non-emergency specialist doctors (biochemistry, anatomy, cardiac surgery, etc.) was, for the most part, devoid of medical authorization to optimally care for patients. Consequently, emotional aversion became a characteristic of them, so that their expressions were linked to the symbolism of justice and institutional fairness. Their grievances may be genuine about the lack of probity in the on-call lists and the failure to respect compensatory rest or exempting some of their colleagues from the medical on-call or resulting from punitive actions emanating from their hospital department heads.

Next, what can be discerned from the observations during the second and third waves of the pandemic are the manifestations of fatigue and exhaustion that eroded the psyche of healthcare teams who had not

fully taken advantage of their annual leave for two consecutive years. The behavioral pattern manifested is presenteeism, with strong consonance, particularly for the professional category, which had a strong emotional attachment to their job and who intrinsically cared about the results of their work (Jensen et al., 2019). In addition, the reliving of scenes of the death of their colleagues and the nature of the restrictive working conditions that prevented them from caring for patients point towards the meaning of practicing "war medicine" against an invisible enemy, and are evidenced by the feelings of guilt that immerse the caregivers' thoughts. Notwithstanding that "excessive or inappropriate levels of guilt can produce a dysfunctional and disruptive experience, as well as psychological and somatization symptoms in some cases." People with depression problems had a history of guilt feelings" (Misiolek-Marín et al., 2020).

Added to this are the medical complications of infected patients, and the appalling increase in the number of patients requiring intensive care further indicates the nature of mental disorders for healthcare personnel, where "the situation of medical triage is another emblematic one that must be understood as a conflict of moral duties where the actors, caregivers, and patients do not seem psychologically safe." (Fourel et al., 2021). These are common factors that have become a vector of mental exhaustion with its harmful consequences on the behavior of caregivers, who seek sick leave or are evidenced by the provision of ephemeral care accompanied by manifest indifference. Thus, the informal transfer of roles between caregivers and patients, which had been converted to the patient's relatives, is resurfacing.

Various forms of violence orchestrated by frustrated or desperate patients exhausted by illness or acts of aggression against healthcare personnel or destruction of hospital property by relatives or companions of distraught patients, are a phenomenon reported during the pandemic in several countries (Ali et al., 2021).Manifestations of violence have returned after signs of gratitude and societal solidarity, and despite the strict legal precautions introduced to punish the behavior of those who attack healthcare personnel. The escalation of barbarism has become a behavioral pandemic grafted into multiple healthcare facilities, particularly during the medical oxygen shortage crisis during the third wave of the pandemic. Thus, "it is likely that the phenomenon of violence can be listed as a criterion for questioning the organization of work within the hospital, because it raises the question of the organizational ideal which values efficiency to the detriment of health care, and what is the relational interdependence between the work group and the nature of the mentalities of the care staff and the users of health" (Michel & Thirion, 1996).

Related to the same refrain of violence, but in its silent form of moral harassment, the harasser evolves in the hospital according to his Machiavellian process of intimidation and hostile behavior until the final exposure of the victim to bodily risk or physical danger that could cause injury or lead to death (Hachelafi, 2021). Thus, during the COVID-19 pandemic, some hospital department heads have used their position in the scientific crisis committee to offer themselves the privilege of reprisals by integrating their victim without consultation into the duty lists or imposing a sustained rhythm. Like blackmail formulas to make her available to the administration for long-term requisition in the COVID-19 units, or even to deprive her of the means of protection under alibis of insufficiency and lack of bibs.

The working conditions aspect reported in the study demonstrated adaptive behaviors and survival reflexes among healthcare personnel (isolation in on-call rooms, reduced rotation frequency in patient rooms, choosing a shelter-refuge in personal vehicles during the night, etc.). These are manifestations of coping in the face of the omnipresent, invisible, and unpredictable occupational risk that increases the concomitant prevalence of health complications, where, for example, sleep disorders among nurses and doctors dealing with COVID-19 patients are 34.8% and 41.6 % (Salari et al., 2020).

The extra-professional aspect manifested in the study by the absenteeism of interns during weekends or religious holidays concretizes the socio-family cost of the pandemic. Indeed, “workers in occupations such as health care (...) may face additional role demands such as long work hours and new fears about exposure to the virus. The combination of increased family and work demands creates a perfect storm that can significantly worsen work-family conflict” (Sinclair et al., 2020).

Resilience is being addressed by healthcare workers in its cultural or religious form to argue for the behavioral curtain hidden behind the trivialization of death or the fear of risk. Thus, "the cognitive and emotional inoculation of the stressors of the COVID-19 pandemic requires organizations and individuals to develop key cognitive, emotional, and interpersonal skills that promote adaptive responses and contribute to an effective organizational and personal resilience plan" (Albott et al., 2020).

Regarding vaccine hesitancy among healthcare workers, the experience is similar for the entire international hospital community, whose behavioral factors likely to influence vaccine adoption include "complacency (perception of risk, severity of illness), sources of information, sociodemographic characteristics, the level of commitment of populations to risk culture, as well as their level of trust in health authorities and conventional medicine" (Peretti-Watel et al., 2015). In addition, specific contextual variables such as the unavailability of the vaccine for the countries of the southern shore and the international validity requirements for marketing, certain types of vaccines have clearly delayed the vaccination campaign and have reinforced the opacity of the fog for their benefit.

Finally, the occupational clinic, through observation and interviews, provided a humanistic and holistic dimension to analyze the responsiveness of healthcare workers on the front lines of the fight against COVID-19. Thus, "the contribution of the occupational clinic allows us to reconsider the issue of commitment anew, particularly in its relationship to the question of 'distance' from the patient. From the subjective issues of work, a conception of the relationship between work and love emerges, in which love and its attendant associated affects likely to be experienced in the relationship with patients is reflected upon by the subjective experience of work" (Gernet, 2021).

5. CONCLUSION

The disciplines of occupational health psychology provide a structured framework for understanding and addressing the emotional and psychological well-being of workers. Unlike traditional assessment techniques that may focus solely on objective measurements or reduce the interpersonal interaction between examiner and patient, occupational health psychology emphasizes the worker’s lived experience, offering a safe and constructive platform for expressing psychological suffering. By considering the emotionality inherent in the workplace, these disciplines allow for the recognition of stress, anxiety, burnout, and other mental health challenges, fostering interventions that are empathetic, preventive, and contextually appropriate. This approach highlights the importance of not merely mitigating symptoms but also understanding the underlying workplace factors and psychosocial dynamics that contribute to psychological distress.

The current health crisis has further underscored the necessity of such a holistic approach, particularly in addressing the mental health of health professionals who face unprecedented levels of stress, trauma, and emotional burden. Traumatic experiences in healthcare settings, such as prolonged exposure to illness, death, or high-stakes decision-making, can have detrimental medium- and long-term effects on the psyche, not only affecting individuals but also impacting the broader functioning of society through diminished professional effectiveness, emotional exhaustion, and impaired interpersonal relationships. This reality calls for reflective and evidence-based strategies that prioritize psychological resilience, emotional support, and preventative interventions, emphasizing that the health of those who care for others is fundamental to the sustainability and effectiveness of healthcare systems.

Conflict of Interest: The authors declare no conflict of interest.

Ethical Approval: The study adheres to the ethical guidelines for conducting research.

Funding: This research received no external funding.

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