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Original papers

The psychological impact of the COVID-19 pandemic among the medical-sanitary staff, a new challenge

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Abstract

The general perception is that the COVID-19 pandemic has been one of the biggest challenges for the health system. While touching every aspect of life, the COVID-19 pandemic has requested a prompt response from the health system and other structures and coordination systems that intervene in daily activity.

The data presented were obtained following the application of a questionnaire to the average care staff of the Pascani Municipal Emergency Hospital, which monitored the impact of the COVID-19 pandemic on their professional activity and emotional state. The results revealed not only feelings of panic, fear, and worry but also determination and stubbornness in the fight against the disease.

The results of the study indicated the adherence of the medical staff to initiatives that promote a holistic approach to the patient, addressing all the patient's sufferings (physical, psychological, social, or spiritual), as well as finding new ways of relieving, treating, and healing them. The therapeutic act was difficult to fulfill because it had to consider the COVID-19 protocols, modified in dynamics, and applied to patients and staff. The use of complete protective equipment, as well as other adjustments to the working conditions, were perceived as an additional effort.

To achieve this desideratum, teamwork, continuous medical education of the medical staff, and efficient communication between the medical assistant-nurse team with the patient and their relatives were of particular importance. Clear, transparent communication on the patient's actual clinical condition and prognosis to his family members is essential to avoid and overcome possible conflictual situations.

Keywords: *COVID-19, medical-sanitary staff, challenge*

Introduction

The COVID-19 pandemic represents a current global crisis in the health system and one of the biggest challenges that the medical and sanitary staff have to face. By mid-2022, more than 550 million cases of COVID-19 and more than 6.5 million deaths were reported worldwide [1].

The rapidly spreading infection with the SARS-CoV-2 virus affected most areas of activity, mainly the medical ones, which had to adapt quickly to the therapeutic, administrative, and human challenges generated by this new pathology [2]. Mandatory measures to prevent and limit the transmission of SARS-CoV-2 infection, such as distancing and permanent wearing of personal protective equipment, represented an additional challenge for working within the medical team. Salazar de Pablo G et al. (2020) showed that in the pandemic, stress and emotional consumption, changes in working hours, and fear of being infected or transmitting the infection to those close to them could affect the mental health of almost two-thirds of health workers.[3]

This study analyzed aspects of the psycho-emotional overload caused by the COVID-19 pandemic among the employees of a COVID-support hospital in the North-East Region of Romania.

Materials and method

We conducted the study at the Municipal Emergency Hospital Pașcani between 01.03- 30.06.2022. Of the employees who participated directly in the care of COVID-19 patients who responded to the questionnaire we proposed, there were 142 respondents. In addition to demographic data (age, sex, occupation, level of education), we have been asking questions regarding the effects of the pandemic on the psycho-emotional state ("What was your reaction at the beginning of the pandemic?", "What was the most important challenge for you in the pandemic?", "What is your state now, after the pandemic waves?"), professional activity ("Did you have to work extra during the pandemic period?", "What were the main difficulties encountered in professional activity?") and the health of the medical-sanitary staff ("What consequences did the disease have on you?"). We analyzed the lot from the point of view of the medical-sanitary profession, sex, age, and degree of graduate studies. The results are expressed in absolute and percentage values.

Results

The batch configuration shows that most respondents are women (91.55%) (Figure 1).

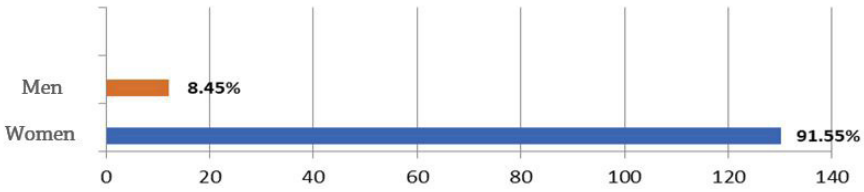


Figure 1. Structure of the batch of respondents by gender (%)

The participants were between 20 and 65 years of age, predominating the category of 36-50 years (56,33%), followed by the groups 51-65 years and 20-35 years, representing 28,87% and 14,80%, respectively (Figure 2).

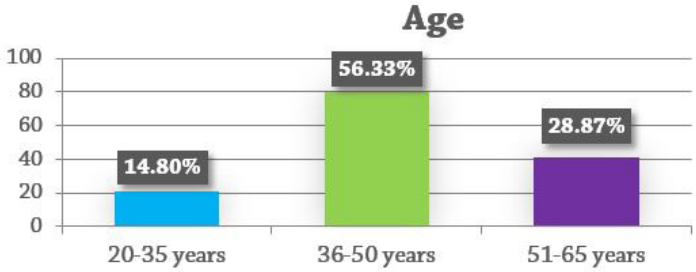


Figure 2. Age of the respondents in the study group (%)

The majority of those who complied with the request to respond to the questionnaire were nurses (81.69%), followed by nurses (12.67%), doctors (4.92%), and kineto-therapists (0.72%) (Figure 3).

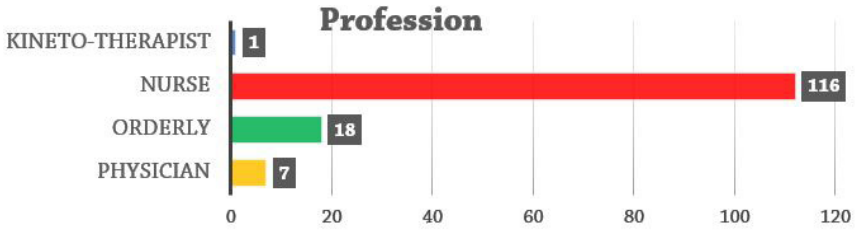


Figure 3. The structure of the batch of respondents according to the profession (absolute values)

From the point of view of the completed educational level, the majority of the participants (58,45%) have graduated from post-secondary schools, 22,54% are graduates from university studies, 9,85% are high school graduates, 7,04% have completed a master's program, and 2,12% have doctoral studies (Figure 4).

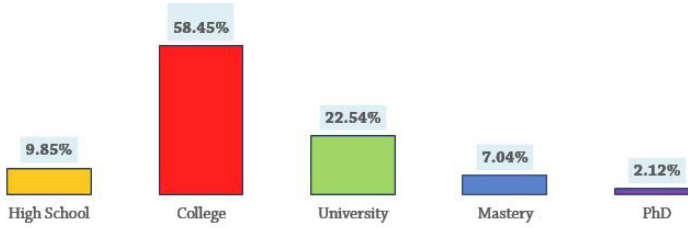


Figure 4. The structure of the group of respondents according to the graduated studies

To the question *"What was your reaction at the beginning of the pandemic?"* the majority (57.75%) answered "panic." Of the others, 35.93% perceived the pandemic as a challenge, 3.51% felt concerned, and 2.81% feared the unknown (Figure 5).

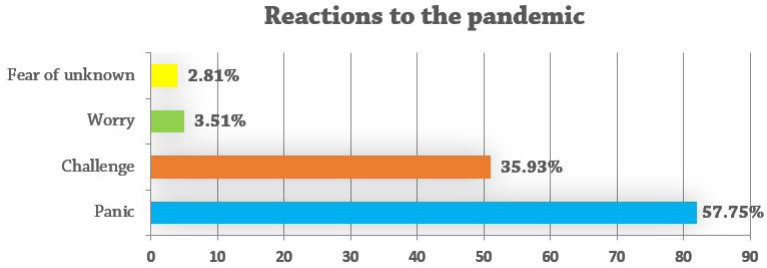


Figure 5. Reactions to the pandemic recorded in the batch of respondents

The question *"Did you have to work extra during the pandemic period?"* highlighted that 62 employees (43.66%) worked extra hours, 72 (50.70%) enrolled in the work schedule, and another 8 respondents (5.64%) did not answer (Figure 6). To the question, *"Have you been sick with COVID-19?"* 74 workers (52.11%) (Figure 7) responded positively.

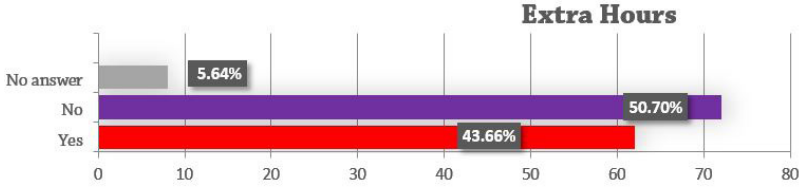


Figure 6. Additional work schedule in the pandemic in the batch of respondents

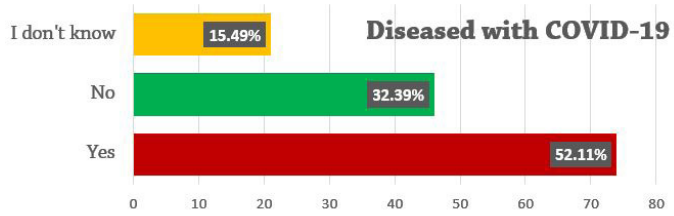


Figure 7. Getting sick with COVID-19 among respondents

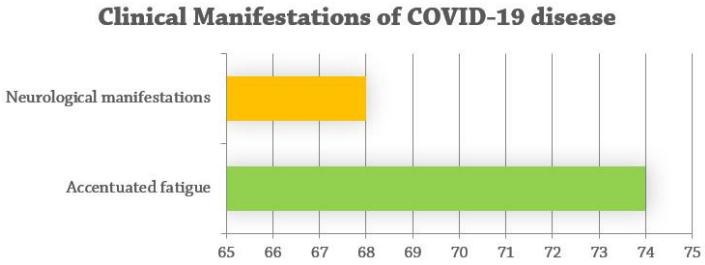


Figure 8. Symptoms of COVID-19 among respondents who have had the disease.

A total of 68 people have fallen ill with COVID-19. Their symptoms (Figure 8) were: increased physical and mental fatigue, difficulty concentrating or making decisions, headaches, and tenseness. The challenges encountered in the work process by the medical and care staff were related to deficiencies in adapting the functional circuits to the new situation (81 respondents, respectively 57%), to the lack of knowledge related to the pandemic (6 respondents, respectively 4.5%) or the insufficiency of the protection materials (126 respondents, respectively 89%) (Figure 9).

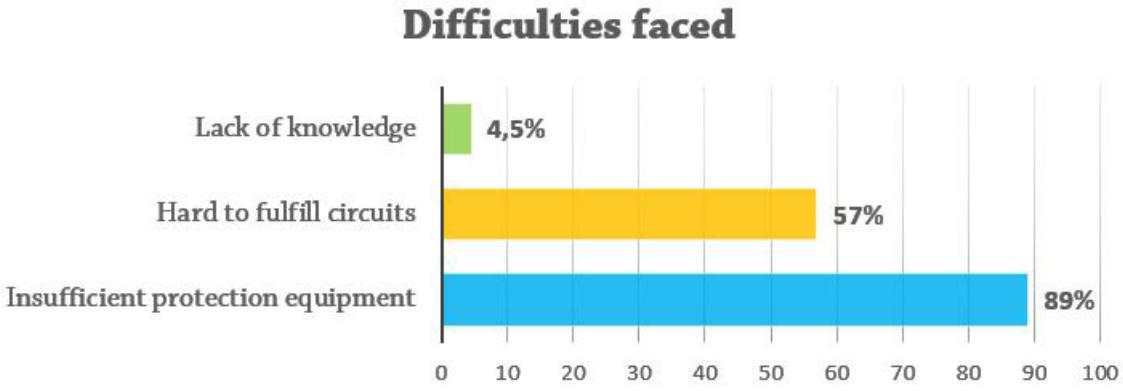


Figure 9. Difficulties encountered in the process of work by medical and care staff

The questionnaire included the open question: *"What has been the most important challenge for you in the pandemic?"*. To this question, the answers were diverse, from overcoming feelings of "lack of strength and hope", "fear of death", "guilt and resignation", to "the need for self-improvement". The final question, *"What is your state now, after the pandemic waves?"* generated answers such as: "We treat the pandemic like any other infectious disease" (95 respondents, 67%), "We managed to adapt" (38 respondents, 26.76%%), "It was too much fear" (4.92%), "We got over it" (1.40%) (Figure 10).

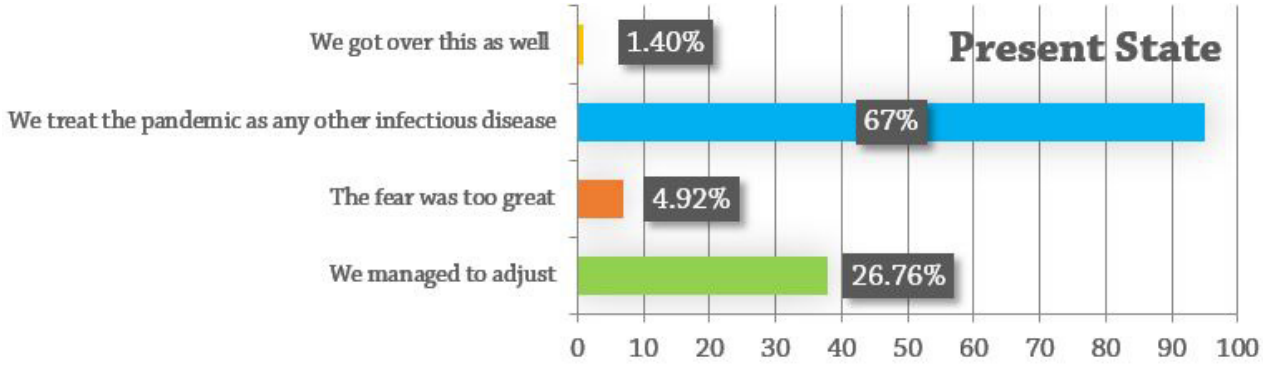


Figure 10. The current state of the post-pandemic wave respondents

Discussion

The COVID-19 pandemic has significantly impacted patients, medical and health personnel, the population in general, health systems, and all fields of activity. Our study analyzes components of psycho-emotional overstrain among medical professionals in an intensive care unit of a COVID support hospital who have cared for complicated cases, with sometimes unfavorable evolution despite the efforts of the medical-sanitary teams. One hundred forty-two health professionals were included in the study, the vast majority of whom (80%) were nurses directly involved in caring for COVID patients. Therefore, our results represent, in particular, the impact on this staff category and align with the results of other studies and reports in the literature.

Thus, the International Council of Nurses (ICN) report highlights the role played by nurses who had multiple responsibilities during the COVID pandemic. It also stated that, in addition to the risks to physical health, there was also an impairment in psycho-emotional health.

On the other hand, nurses have accumulated knowledge on the use of technology, the need for appropriate language and behavior for patient comfort, and also becoming aware of the existence of gaps or discontinuities between departments and how managerial decisions made can have undesirable consequences. They have paid more attention to the circumstances in which risks that endanger workplace safety may occur [4]. In a Communiqué of the European Commission of June 2021, it stressed the importance of collecting data on the overloads and malfunctions of the medical systems with particular attention to the medical staff on the "front line" to avoid the "crises in the health systems" that may occur in the future [5].

The pandemic was a professional challenge and stressed the importance of the role of the nurse. The unique situation required the intervention of many nurses with limited experience in infectious diseases, who had to adapt to a new working environment. Half of the respondents felt "panic" at the beginning of the pandemic, while a third perceived working in the "State of Emergency" as a professional challenge.

The alarming evolution of the medical situation imposed restrictions imposed that reflected in their personal life, not only in professional activity. The feelings of panic, anxiety, and worry about one's health or the family's health have been described by studies that have tracked the psycho-social effects of the pandemic on medical staff [6,7,8].

On the other hand, in 2020, Salari N et al. pointed out that during the pandemic, there was an association between the level of education and the intensity of anxiety and depression [9]. Of the participants in our study, over 90% had post-secondary studies, licenses, master's, or doctorate (Figure 4). The results obtained align with those in the literature. Half of the respondents felt "panic" at the beginning of the pandemic, but the feeling improved along the way (Figure 5).

The results of our study showed that although over half of the respondents had COVID (Figure 7), no deaths were recorded, and, therefore, the increase in stress levels cannot be attributed to the increased mortality among co-workers. Regarding the casualties among the medical staff at the beginning of the pandemic, the literature data showed that in May 2020, COVID caused one death in every 100 medical staff infected with SARS-CoV-2 [10]. On the other hand, data provided by the International Labour Organization (ILO) estimated mortality in the homes of medical professionals due to COVID at about 115,500 deaths between January 2020 and May 2021 [11], which could explain the excessive concern at the

beginning of the pandemic.

A third of respondents saw the pandemic as a professional challenge. This also resulted in almost half respondents (43.66%) accepting the situation and working overtime.

The existence of a relatively large number of respondents who fell ill with COVID (68 out of 142) increased the effort made, through compensation, of colleagues to carry out their professional activities. Data from the literature showed that the increase in work hours, the change in the workstation requirements, the lack of support, the inefficient communication, and the evolution of protocols increased the general overload of workers who filled the gap created by quarantined colleagues [3,4]. These organizational changes are part of the factors that increase the level of stress in the workplace [12,13]. NIOSH ties the stress level at the workplace to the discrepancy between the workstation's requirements and the worker's capabilities or resources [14], and the HSE emphasizes that workers can feel an increase in occupational stress when they cannot cope with problems in the workplace [12]. Work-related stress is a vulnerable point in health systems and can present itself in various forms. For example, in the context of the COVID-19 pandemic, Liu et al. (2022) found that the symptoms of post-traumatic stress persisted two years after the outbreak of the COVID-19 pandemic among the medical staff who cared for COVID patients [16].

On the other hand, data from the literature draw attention to the fact that several symptoms (new or persistent) can manifest themselves even after several months from the moment of acute infection with SARS-CoV-2 [17]. The symptoms described post-COVID-19 were fatigue, general post-exercise malaise, dyspnea, cognitive impairment, sleep disorders, anxiety and depression, muscle pain, confusion, headache, and limitation of functional capacity, with an impact on quality of life [17]. Literature sources have shown that anxiety and depression can be associated with quarantine practices during COVID-19 treatment [18,19]. These are the results of research suggesting that around 80% of nurses are experiencing mental health problems, depression, and post-traumatic stress disorder related to COVID-19 and that in the next few years, it may take more than 10 million nurses to cover the global deficit created by the COVID-19 pandemic [20].

The data we obtained (Figure 8) show that the symptomatology of the medical staff diagnosed with COVID-19 consisted of accentuated physical and mental fatigue associated with neurological manifestations, such as the decreased ability to concentrate, lack of force of action, headache, and mental strain. These events could negatively impact the subsequent professional activity if it is necessary to make additional efforts to cope with the work schedule and perform all the duties they have within the medical teams.

Regarding the difficulties encountered in the professional activity (Figure 9) there were reported: the insufficiency of the protection materials (89%), the deficiencies in adapting the functional circuits to the new situation (57%), and the lack of precise data related to the pandemic (4.5%). The data we obtained is in line with those in the literature [6-10], which requires rethinking the management strategies for situations that may reappear in the future [5]. To the question: "What has been the most important challenge for you in the pandemic?" many answers were: overcoming feelings of lack of strength and hope, guilt or intense suffering, resignation, and fear of death. The medical and sanitary personnel were both saviors and survivors of the pandemic [16]. Currently (Figure 10), the majority of workers (67%) consider COVID-19 as "any other infectious disease," and from now on, COVID-19 will be treated, taking into account the experience gained during the pandemic.

Conclusion

Currently, most workers regard COVID-19 as any other infectious disease as opposed to the beginning of the pandemic, when more than half of the respondents felt panic and concern. The difficulties encountered in medical activity were related to insufficient protection materials, deficiencies in adapting the existing functional circuits to the new situation created by the pandemic, neuropsychological overload, and information shortcomings. Knowing these issues requires better preparation for similar critical problems that may occur in the future.

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