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CONCERN AND FEAR OF COVID-19 IN PERUVIAN NURSES WORKING IN EMERGENCY SERVICES 2021

PREOCUPACIÓN Y MIEDO A LA COVID-19 EN ENFERMEROS PERUANOS QUE LABORAN EN SERVICIOS DE EMERGENCIA 2021

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ABSTRACT

Introduction: There are few studies on COVID-19-related concern and fear among emergency healthcare professionals. **Objective:** To characterize concern and fear about COVID-19 among Peruvian emergency nurses. **Methods:** A quantitative, cross-sectional, correlational study was conducted in two Lima hospitals between February and June 2021. A total of 212 nurses, selected through purposive sampling, participated. The Concern about COVID-19 Contagion Scale and the Fear of COVID-19 Scale were used, both showing reliability (Cronbach's alpha>0.7) and good psychometric properties. Instruments were self-administered online and in person. Descriptive and comparative analyses were performed using ANOVA and Pearson correlation tests, with significance set at p<0.01. **Results:** Of the participants, 72.6% were women, with a mean age of 37.45 years; 92.5% worked on-site, and 80.7% were fully vaccinated. Moderate levels of concern (12.9±3.2 points) and fear (17.9±4.7 points) predominated. A total of 41% often thought about contagion, 45.3% reported that it affected their mood, but 82.5% stated it did not impact their work performance. Women, unvaccinated participants, and those working on-site showed lower concern, while men, those with only one vaccine dose, and on-site workers reported greater fear, including fear of death (35.3%). **Conclusions:** Levels of concern and fear about COVID-19 among Peruvian nurses are mostly moderate, with significant variations by sex, vaccination status, and work modality, suggesting the potential emotional impact of the pandemic on this group.

Keywords: COVID-19, Expression of concern; Fear; Nurses; Emergency. (Source: MESH-NLM)

RESUMEN

Introducción: Son pocos los estudios sobre preocupación y miedo a la COVID-19 en profesionales de salud de emergencias. **Objetivo:** Caracterizar la preocupación y miedo a la COVID-19 en enfermeros peruanos de servicios de emergencias. **Métodos:** Se realizó un estudio cuantitativo, transversal y correlacional en dos hospitales de Lima entre febrero y junio de 2021. Participaron 212 enfermeros seleccionados mediante muestreo intencional. Se usaron la escala de preocupación ante el contagio de la COVID-19 y la escala de miedo a la COVID-19. Ambas mostraron confiabilidad (alfa de Cronbach>0,7) y buenos índices psicométricos. Los instrumentos fueron autoadministrados en línea y presencialmente. Se realizaron análisis descriptivos y comparativos mediante pruebas de ANOVA y correlación de Pearson, con significancia p<0,01. **Resultados:** El 72,6% de los participantes fue mujer, con edad promedio de 37,45 años; 92,5% trabajaba presencialmente y 80,7% estaba completamente vacunado. Predominaron niveles medios de preocupación (12,9±3,2 puntos) y miedo (17,9±4,7 puntos). El 41% piensa, a menudo, en el contagio; 45,3% considera que afectó su estado de ánimo, pero 82,5% indicó que no impactó sus capacidades laborales. Las mujeres, los no vacunados y quienes trabajaban presencialmente mostraron menor preocupación, mientras que los hombres, quienes tenían solo una dosis y trabajaban presencialmente presentaron mayor miedo, incluido el miedo a perder la vida (35,3%). **Conclusiones:** Los niveles de preocupación y miedo a la COVID-19 en enfermeros peruanos son mayoritariamente moderados, con variaciones significativas según sexo, vacunación y modalidad laboral, sugiriendo el potencial impacto emocional de la pandemia en este grupo.

Palabras clave: COVID-19; Expresión de preocupación; Miedo; Enfermeros; Emergencia. (Fuente: DeCS- BIREME)

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INTRODUCTION

The COVID-19 pandemic affected various aspects of human life: social, economic, educational, cultural, and spiritual, and it impacts individual and collective health from all perspectives due to its rapid spread and increased mortality [1]. According to epidemiological reports, as of July 2024, more than seven million deaths and over 775 million infections have been recorded worldwide [2]. It should be noted that since 2021, its variants and subvariants have continued to spread in all countries [3]. In Peru, around 111,000 deaths were reported, making it the South American country with the highest mortality rate globally. However, it is estimated that the real numbers are two to three times higher than the official figures [4].

In this context, since the first confirmed cases in March 2020, Peruvian healthcare personnel have taken on the task of reducing morbidity and mortality in the most vulnerable populations while also protecting themselves from infection, alongside the risk of illness and death from the disease. Nevertheless, in Peru, more than 2,200 healthcare workers were reported to have died from COVID-19 [5].

Despite the sharp rise in infections and deaths, healthcare personnel had to cope with the health emergency in a scenario characterized by a lack of hospital capacity in terms of available intensive care unit beds, a shortage of specialized personnel, limited material resources, and insufficient personal protective equipment. Additionally, there was a reduced availability of oxygen support and ventilation systems. This was compounded by the intense pressure on emergency services, triage, the overflow of patients, attending to relatives, family isolation, and witnessing the loss of colleagues, patients, and family members. All of this led to physical and mental exhaustion, as documented by various studies, which showed healthcare teams experiencing signs of stress, anxiety, depression, and fatalism, as well as sleep disturbances, feelings of anger, fear, frustration, and denial [6-9]. This physical and mental fatigue among healthcare professionals affected the quality of patient care, their decision-making capacity, and even their clinical skills, which were sufficient reasons to intensify efforts to protect the physical and mental health of healthcare workers [10]. In this context, nursing professionals who worked on the frontlines, especially in emergency services, were also affected. For instance, by early 2021 in Peru, 7,780 cases of COVID-19 and 90 nurse deaths were reported [11]. This situation generated fear of COVID-19 infection, and concern was likely constant. However, empirical studies show some discrepancies regarding fear of COVID-19. In this way, a study conducted at a hospital in Lima reported high levels of fear, as well as in the dimensions of emotional fear reactions (EFR) and somatic expressions of fear (SEF), which also reached a high level [12].

In contrast, another study in Lima found moderate levels of fear of COVID-19 (74.3%) [1]. Lastly, another study concluded that Peruvian nurses had low concern about contracting COVID-19 [9]. Internationally, an important study conducted in Wuhan, China, showed that nurses exhibited a high level of fear of COVID-19 (91.2%) [13]. Despite these differences, the literature considers fear to be a good predictor of anxiety [14] and fatalism [9]. Therefore, it is relevant to study the concern and fear of nursing staff during the COVID-19 pandemic.

Furthermore, reports suggest that these professionals were likely the most subject to pressure, fear, and constant concern about becoming infected. This is understandable, given the complexity of stabilizing patients and the psychological impact associated with potential infection [15,16]. In this line, it is worth noting that empirical evidence is still scarce regarding these professionals and their concern and fear of infection, among other constructs that need further investigation. Therefore, the objective was to characterize the concern about infection and fear of COVID-19 in Peruvian nurses working in emergency services.

METHODS

Study Type

This was a quantitative, cross-sectional study. A descriptive, comparative, and correlational design was followed, using the STROBE checklist for cross-sectional studies [17]. It was conducted between February and June 2021. The study was conducted in two of the most

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important hospitals in Lima, Hospital Casimiro Ulloa and Hospital María Auxiliadora, both serving as referral centers for the care of COVID-19 patients during the pandemic. These hospitals were selected due to their high influx of critical patients and their role on the front line of the health emergency response.

Population and sample

The population consisted of nurses working in the emergency services of Hospital de Emergencias Casimiro Ulloa and Hospital Nacional María Auxiliadora in Peru. Intentional sampling was used, with 212 nursing professionals as the unit of analysis. The inclusion criteria were: working in an emergency service (emergency, ICU, COVID-19 ICU, trauma shock) of any of the hospitals described. On the other hand, the exclusion criteria targeted individuals on leave or vacation.

Variables and instruments

A survey (in-person and online) was used, consisting of two Likert-type scales. The first was the COVID-19 Infection Concern Scale (Pre-COVID-19 Scale), which contains six items and was developed and validated by Caycho et al.[18]. This unidimensional scale showed satisfactory goodness-of-fit indices ($\chi 2^{(9)}$. = 52.00; Comparative Fit Index [CFI] = 0.99; Root Mean Square Error of Approximation [RMSEA] = 0.09 [0.07, 0.12]; and Weighted Root Mean Square Residual = 0.85). The λ coefficients of the model were above 0.5, and it presented excellent reliability (ω = 0.90). The second scale was the Fear of COVID-19 Scale, which contains seven items in its Spanish version, validated in the Peruvian population by Huarcaya et al. [19]. Through a psychometric study, they reported a bifactorial model: EFR (items 1, 2, 4, and 5) and SFE (items 3, 6, and 7). The scale showed adequate goodness-of-fit indices (CFI = 0.988, RMSEA = 0.075) and invariance according to healthcare workers and age (ΔCFI < 0.01).

With the collected data, the reliability of both scales was determined using Cronbach's alpha coefficient, yielding high values. Specifically, a coefficient of 0.707 was found for the Pre-COVID-19 scale and 0.747 for the Fear of COVID-19 scale, with coefficients for the EFR and SFE subscales of 0.752 and 0.814, respectively.

Procedures

Initially, the instruments were self-administered online, developed in Google Forms, and distributed through social networks. The time to complete the survey was approximately 30 minutes. Due to the low response to the virtual form, in-person data collection was carried out by visiting emergency services in Lima hospitals, where nursing professionals worked. To calculate the levels for the study variables and subscales, standardization was performed (Table 1).

Table 1. Standardization of Scales and Subscales Based on Data Obtained in the Present Study.

Scales and Subscales	Number of Items	Possible Scores	Scale		
			Low	Medium	High
Pre- COVID-19	6	6-24	6-11	12-15	16-22
Fear of COVID-19	7	7-35	7-16	16-20	21-31
Subscale EFR	4	4-20	4-11	12-16	17-19
Subscale SFE	3	3-15	3	4-6	7-13

Note: Pre-COVID-19: Concern about COVID-19 infection scale.

EFR: Emotional Fear Reactions, SFE: Somatic Fear Expressions.

Statistical Analysis

A descriptive analysis was performed. Categorical variables were presented using frequencies and percentages, while continuous variables were described using the mean, median, standard deviation (SD), and interquartile range. To determine significant statistical differences between the scores of each scale item based on characteristics, Pearson's correlation coefficient was used, as the variables showed a normal distribution. Similarly, a one-way ANOVA (Analysis of Variance) test was used for comparative analysis between the scale items. The significance level was set at 0.01. Statistical processing was performed using the SPSS software, version 28.0.1.

Ethical Aspects

In this research, the Declaration of Helsinki[20] was taken into account, ensuring the anonymity of the nursing professionals who participated in the study and avoiding the collection of any identifiable data. Autonomy was respected as informed consent was obtained virtually before participants completed the online form. Additionally, the research project was reviewed and approved by the Ethics Committee of the Hospital Casimiro Ulloa and the Ethics Committee of the Universidad María Auxiliadora (certificate no. 008-2021).

RESULTS

Participant Characteristics

A total of 212 participants responded to the questionnaire. Of them, 72.6% (154) were female, and the average age was 37.45 years (SD = 8.9). Regarding professional experience, 37.7% (80) had less than five years of experience; 27.8% (59) had 5 to 10 years; 19.8% (42) had 11 to 15 years; and 14.6% (31) had over 16 years of experience. At the time of the survey, 92.5% (196) of respondents were working in-person, while only 7.5% (16) were working remotely. Additionally, 44.8% (95) had contracted COVID-19 at some point during the pandemic. In terms of vaccination status against COVID-19, 80.7% (117) had completed the full vaccination schedule (two doses) during the data collection period, while 9.0% (19) had only received one dose, and 10.4% (22) were not vaccinated. Of the participants, 98.6% (193) worked in a public hospital in Lima, while the others were from ten different cities.

Levels of Concern and Fear of COVID-19

Based on the standardization of the scales and subscales, the entire sample was distributed across the different levels: low, medium, and high. As shown in Table 2, the total scores indicate that medium levels predominated, followed by low levels. When comparing the levels according to gender, similar percentages were found.

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Table 2. Levels of concern and fear of COVID-19 in nurses working in critical units by gender (n=212)

Scales and Subscales	Total			Men			Woman		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
Pre-COVID-19	32.5	40.6	26.9	29.4	41.4	29.3	33.8	40.3	26
Fear of COVID-19	30.7	41.7	27.8	25.9	44.8	29.3	32.5	40.3	27.3
Subscale EFR	31.1	53.3	15.6	25.9	55.2	19	33.1	52.6	14.3
Subscale SFE	37.7	42.9	19.3	41.4	37.9	20.7	36.4	44.8	18.8

Pre-COVID-19: Concern about COVID-19 infection scale

EFR: Emotional Fear Reactions, SFE: Somatic Fear Expressions.

Descriptive Analysis of the Scores on the Concern and Fear of COVID-19 Scales

Table 3 presents the statistical description of the concern scale scores. The sample reached a mean of 12.9 points, with a standard deviation of 3.2 and an interquartile range of 11.0 – 16.0 points, placing the scale's mean in the medium range. Similarly, for the fear of COVID-19 scale, the sample reached a mean of 17.9 points, with a standard deviation of 4.7 and an interquartile range of 15.0 – 21.0 points, positioning the mean in the medium range as well. This same trend was observed in its dimensions: emotional fear reactions and somatic fear expressions, where the sample reached means of 12.9 and 5 points, respectively.

Table 3. Description of Scores on the Concern and Fear of COVID-19 Scales (n=212).

Scales and Subscales	Mean	Standard Deviation	Median	Interquartile Range
Concern about COVID-19 Infection Scale	12.9	3.2	13.0	11.0 – 16.0
Fear of COVID-19 Scale	17.9	4.7	19.0	15.0 – 21.0
Emotional Fear Reactions	12.9	3.7	14.0	10.0 – 16.0
Somatic Fear Expressions	5.0	2.1	5.0	3.0 – 6.0

Comparative Analysis Between the Scale Scores and Participant Characteristics

Table 4 shows the existence of significant positive correlations between all the instruments (total scores) and their respective subscales. Likewise, these analyses revealed that the age of the nurses does not correlate with any of the instruments applied.

Table 4. Correlational analysis (Spearman's correlation) between age and scores on concern and fear of COVID-19 scales in nurses working in critical units (n=212).

Variables	Concern about COVID-19 Infection Scale	Concern about COVID-19 Infection Scale	Escala Fear of COVID-19	Emotional Fear Reactions	Somatic Fear Expressions
Age	1	-0.048	-0.003	-0.042	0.068
Concern about COVID-19 Infection Scale		1	0.687 *	0.673 *	0.354 *
Fear of COVID-19 Scale			1	0.905*	0.649 *
Emotional Fear Reactions				1	0.264*
Somatic Fear Expressions					1

*Correlation is significant at the 0.01 level (two-tailed).

Finally, the total scores of the instruments were subjected to parametric analysis to identify statistically significant differences. In this context, no statistically significant differences were found based on gender for any of the variables studied (all tests and total scores). Similarly, there were no statistically significant differences based on vaccination status, except for somatic fear expressions, which were higher among those who had not been vaccinated ($F = 5.063$; $p = 0.007$).

Regarding years of professional experience, no statistical differences were found across all the tests. Furthermore, no statistically significant differences were found when comparing the scores, across all tests, between nurses who had contracted COVID-19 and those who had not.

Comparative Analysis of the Concern and Fear of COVID-19 Scale Items According to Participant Characteristics

Regarding the description of the items related to concern about COVID-19 infection, as presented in Table S1 (Supplementary Material), it is evident that most nurses often think about the likelihood of contracting the coronavirus (41%), which has affected their mood sometimes in 45.3% of cases. However, the majority of nurses (82.5%) responded that this situation has never affected their ability to carry out daily activities. Regarding the level of concern about infection, most nurses responded that they were only a little concerned (46.2%), with the frequency of concern being occasional for 43.9%. However, for a significant percentage of nurses, the concern is often constant (30.7%). Additionally, 60.4% of nurses consider the possibility of contracting the coronavirus to be a minor concern, compared to 20.8% who undoubtedly consider it a major concern. Parametric analysis of the items, according to participant characteristics as shown in Table 5, reveals that in Item 1, unvaccinated individuals scored lower compared to those vaccinated with one or two doses (sig. 0.046); a finding that is repeated in item 2, related to mood (0.001). On the other hand, in item 3, it was found that nurses with two vaccine doses are less concerned about infection affecting their day-to-day activities (0.014).

Regarding item 2, it was observed that those working remotely consider that concern impacted their mood more significantly (sig. 0.002). Finally, in item 6 (seeing infection as a major issue), women were found to have the highest scores (sig. 0.001). Regarding the comparative analysis of each item according to participants' characteristics (Table 6), it was found that individuals working on-site (Item 1) reported greater fear of COVID-19 (sig. 0.009).

This same result was observed for Item 2, indicating discomfort associated with thinking about COVID-19 (sig. 0.001). Concerning the fear of losing one's life due to COVID-19 (Item 4), the highest scores were found among men (sig. 0.045), those working on-site (sig. 0.001), and those who received only one vaccine dose (sig. 0.003). Finally, individuals without any vaccination reported experiencing a racing heart when thinking about the possibility of infection (Item 6), unlike those who received one or two doses (sig. 0.002).

Table 5. Comparison of the average scores for responses to each item on concern about COVID-19 infection among nurses by sex, vaccination status, and type of work.

	Sex			Vaccination Status				Remote Work		
Ítems	M n=58	F n=154	Sig.*	No n = 22	1 dose n = 19	2 dose n = 171	Sig. †	No n= 196	Yes n= 16	Sig.*
1. How often have you thought about the likelihood of getting infected with coronavirus?	2.57	2.37	0.057	2.80	2.63	2.45	0.046*	2.06	2.45	0.078
2. Has thinking about the possibility of getting infected with coronavirus affected your mood?	1.98	1.94	0.366	1.45	2.00	2.01	0.001**	1.38	2.00	0.002
3. Has thinking about the possibility of getting infected with coronavirus affected your ability to perform your "day-to-day" activities?	1.14	1.23	0.075	1.41	1.26	1.17	0.014*	1.25	1.20	0.683
4. To what extent are you concerned about the possibility of getting infected with coronavirus?	2.41	2.58	0.055	2.23	2.58	2.57	0.179	2.38	2.55	0.328
5. How often do you worry about the possibility of getting infected with coronavirus?	2.67	2.58	0.282	2.18	2.68	2.65	0.116	2.19	2.64	0.102
6. Is being worried about the possibility of getting infected with coronavirus a significant problem for you?	1.93	2.23	0.001	2.41	2.00	2.13	0.237	2.13	2.15	0.901

Note: *Student's T-test, †ANOVA test. M: Male. F: Female.

Table 6. Comparison of the average scores for each item of fear of COVID-19 among nurses by sex, vaccination status, and type of work.

Ítems	Sex			Vaccination Status				Remote Work		
	M n=58	F n=154	Sig.*	No n = 22	1 dose n = 19	2 dose n = 171	Sig. †	No n= 196	Yes n= 16	Sig.*
1. I am very afraid of the coronavirus	3.74	3.71	0.889	3.19	4.00	3.76	0.061	2.94	3.79	0.009
2. It makes me uncomfortable to think about the coronavirus	3.64	3.47	0.404	3.05	3.84	3.54	0.050	2.50	3.60	0.001
3. My hands get sweaty when I think about the coronavirus	1.34	1.51	0.153	1.82	1.37	1.43	0.180	1.56	1.46	0.604
4. I am afraid of losing my life because of the coronavirus	3.95	3.54	0.045*	3.05	4.26	3.66	0.003	2.55	3.77	0.001
5. When I see news and stories about the coronavirus on social media, I get nervous or anxious	1.86	2.14	0.081	2.27	1.79	2.06	0.253	2.44	2.03	0.126
6. I cannot sleep because I am worried about getting infected with the coronavirus	1.67	1.71	0.734	2.05	1.63	1.67	0.173	1.50	1.72	0.291
7. My heart races or beats fast when I think about getting infected with the coronavirus	1.69	1.82	0.348	2.41	1.79	1.70	0.024	1.81	1.78	0.890

Note: *Student's T-test, †ANOVA test. M: Male. F: Female.

DISCUSSION

Among the main findings of the study, it was shown that emergency nurses exhibited a moderate level of fear of COVID-19. Additionally, most of them reported experiencing significant fear, discomfort when thinking about the coronavirus, and fear of losing their life due to the virus. These results reveal the intensity of fear as the primary emotional reaction faced by nurses during direct patient care in the emergency department.

Regarding the findings, similar results have been reported in recent studies, where participants also reached a moderate level of fear, with an average score of 16.79 points[21]. Likewise, a 2020 multicenter study revealed that the fear of COVID-19 scale had an average score of 16.7 points[22]. In 2021, in the city of Lima, a predominance of moderate-level fear (74.3%) was found; similarly, regarding the dimension of somatic expressions of fear, participants also exhibited a moderate level (65.7%) [1]. However, differences have been discovered in the findings of another study, also conducted in Lima, which examined fear of COVID-19 in nursing staff working at a national public hospital. The study found that most participants (58%) scored above 25 points. Regarding the dimensions of the scale, both emotional fear reactions and somatic fear expressions reached high levels (59.5% and 53.4%, respectively)[12]. Similarly, a study conducted in Wuhan, China, recorded that participants exhibited a high level of fear of COVID-19 (91.2%) [13]. It is worth noting that all these studies were conducted among nursing professionals

working in COVID-19 areas, an environment exclusively for patients with this diagnosis, where close contact with such personnel is frequent. In terms of indicators from the COVID-19 fear scale, similar findings were reported in Colombia in three indicators: significant fear of the coronavirus (82.3%), discomfort when thinking about the virus (78.5%), and fear of losing one's life (71%). However, opposite results were found for the remaining indicators[8]. Some authors suggest that fear is a disturbance of the mind caused by a threat or danger, which can increase or decrease in each person. As it is a socially created or represented condition, fear is also a social state, not just a physiological one [23]. Additionally, there is broad consensus in describing fear as a defensive reaction to danger, which has, to some extent, a protective function[24].

In this sense, the COVID-19 pandemic was considered a public health emergency in all countries, causing thousands of deaths in short periods, which significantly impacted social aspects [25]. This health crisis poses a threat or danger due to its high transmissibility, particularly in 2020 and 2021, and various forms of contagion constitute a high occupational risk for nursing professionals and healthcare workers in general[26]. As a result, situations of fear, uncertainty, and high concern are understandable, particularly regarding the possibility of contracting or transmitting the virus to family members. If we add inadequate working conditions, fear would significantly increase, along with other states such as stress, anxiety, and psycho-emotional exhaustion[27]. However, there are not enough studies to fully understand the phenomenon of concern regarding COVID-19. Nevertheless, one study with similar results to the present report found that nurses in a Peruvian sample had an average score of 13.23 points, placing it in the medium range[14].

More extensive, possibly cross-cultural, studies are needed to understand how cultural, social, and working conditions might influence the concern and fear of contracting COVID-19. It is important to note that concern involves the persistence of one or more recurring topics in people's thoughts and conversations, which are related to anxiety and depression due to future uncertainty regarding how to carry out actions, potentially leading to a loss of control in decision-making[19]. In this context, the ongoing and prolonged state of emergency due to COVID-19, the possibility of contracting the virus, the lack of human resources, the scarcity of protective materials and biosecurity equipment, and the increase in patients, among other factors, constitute recurring issues and a constant manifestation in healthcare personnel and nursing management, causing concern in daily tasks. Strictly speaking, and knowing that we are addressing a new thematic field, the findings on the concern of nurses are consistent with the intensity of fear they exhibit. Here, it is worth noting that while fear is a response that drives immediate action, concern fosters anticipation or preparation for future protective actions in response to danger [29] . The timing of this global health crisis is also important in understanding our findings. It is likely that the fear and concern of the subjects in this sample were greater in 2020 than in 2021, when the instruments were applied. This is because, by 2021, nurses had partially overcome their concerns due to improvements in hospital response capacity, resource allocation, and a decrease in COVID-19 cases in the weeks leading up to our study. Additionally, mass vaccination of healthcare personnel and scientific knowledge about the disease, which was not available in 2020, likely played a significant role.

Some limitations of this study should be highlighted. First, for ethical reasons, we applied the instruments to volunteers. Second, the fact that we did not consider questions about working conditions or the perceptions of nurses reduced the possibility of including potentially relevant intervening variables for the study of these two constructs. Lastly, during data analysis, it may have been pertinent to incorporate questions regarding the reasons for getting vaccinated or not; this could help understand why people with one dose are more concerned than those with two doses or no vaccination against COVID-19.

CONCLUSION

The findings of this study highlight the predominant levels of concern and fear of COVID-19 among nursing staff working in emergency services. Although most participants exhibit moderate levels of these emotions, differences were identified based on characteristics such as sex, vaccination status, and work modality, particularly in emotional and somatic reactions associated with fear. These differences underscore the importance of considering targeted interventions to support the mental health of nurses, who face a constant risk of infection due to their direct work with critical patients. In this regard, ensuring an adequate work environment, promoting access to vaccination, and providing continuous psychological support are essential strategies to mitigate the negative effects of concern and fear, which could compromise both their personal well-being and professional performance.

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