# STRESS FACTORS OF NURSES IN COVID DEPARTMENTS

Kristina Hanžek[1] ,Vesna Bratić[2] , Anita Lukić[3] , Slobodan Mihaljević[2]

[1] Clinic for Neurology, University Hospital Centre Zagreb, Kišpatićeva 12, 10 000 Zagreb, Croatia

[2] Clinic for Anesthesoiology, Reanimatology, Intensive Care Medicine and Pain Therapy,

University Hospital Centre Zagreb, Kišpatićeva 12, 10 000 Zagreb, Croatia

[3] Department of Anesthesiology, Reanimatology and Intensive Care Medicine,

General Hospital Varaždin, Ivana Meštrovića 1, 42 000 Varaždin, Croatia

## ABSTRACT

**Objective:** To define the stressors that cause the highest level of stress in nurses / technicians in COVID intensive care units (ICU) and regular COVID departments and to compare stressors between these two departments.

**Methods:** For the purposes of the research, a validated questionnaire on stressors at the workplace of hospital health workers was used. The questionnaires were distributed to 194 nurses/technicians, working in the COVID departments. The questionnaire consists of 3 parts; the first part contains demographic data of the respondents, the second part of the questionnaire consists of 34 questions that describe certain stress factors and are answers are offered on a Likert - type scale and the last part of the questionnaire consists of 3 open-ended questions to which respondents can add stressors to which they are exposed, which were not previously mentioned.

Results: Differences were found in the level of education regarding the length of work with COVID patients, nurses / technicians with a higher level of education worked longer in the COVID department (p=0.043). No differences were found in the level of stress between nurses/technicians working in the COVID department compared to the COVID ICU (p=0.181). Among the factors that caused the highest level of stress are: work overload, inadequate personal income, insufficient number of employees and everyday unpredictable and unplanned situations.

**Conclusion:** Our results indicate that there is no difference in the level of stress between nurses working in the COVID departments compared to nurses working in the COVID ICU. Due to the high prevalence of stress among nurses who work with COVID patients, it is necessary to monitor the symptoms of burnout and provide support in the workplace. According to the results of our research, there is a need to optimize working conditions and invest efforts in order to reduce the workload.

**Keywords:** stress, nurses, COVID, departments

Correspondence: Kristina Hanžek, univ. mag. med. techn.

E-mail: kristina.hanzek@kbc-zagreb.hr

## INTRODUCTION

Many studies have shown that the profession of a nurse is one of the most stressful professions (1, 2). Chen et al. studied the intensity of work stress in six different occupations and found that the level of overall work stress for nurses is higher than average compared to other occupations (3). Stress among nurses is associated with negative impacts such as psychological distress, burnout, depression, anxiety, pain in the lower back, and worse patient care (4, 5, 6).

The emergence of the novel respiratory coronavirus 2 (SARS-CoV-2) in China at the end of 2019 led to a global pandemic, causing drastic changes in social, economic and health structures at the global level (7). Previous studies of health care workers during past epidemics have similarly shown increased mental burden among health care workers, with social isolation being a key stressor (8, 9, 10, 11). Nurses' responses to the stress of the current pandemic must be viewed from an occupational health and safety perspective. Stress and burnout were internationally recognized as occupational hazards for nurses even before the pandemic itself

(12). Although research suggests that both professional and personality factors play a role in burnout (13, 14), in 2019 the World Health Organization declared burnout to be a professional phenomenon – not a health condition (15). Marked by a feeling of exhaustion, disengagement at work and a feeling of reduced professional fulfilment, burnout is considered the result of chronic stress at work that the individual is unable to resolve on his own (15). The onset of the COVID-19 pandemic increased work stress: studies from China (16, 17, 18) and Italy (19) have shown that working with patients with COVID is the main risk factor, but have also identified several other variables that explain reported symptoms of depression, anxiety, insomnia, psychological stress and post-traumatic stress among nurses (15, 19). Investigating nurses' perceptions of stress during the early phase of a pandemic provides important insight into the nurses' experiences and potential measures that health care facilities can take to alleviate nurse stress. Providing nurses with adequate personal protective equipment is one concrete measure that can help protect nurses and alleviate their fear of infection.

Healthcare facilities should provide opportunities for nurses to discuss the stress they are experiencing, support each other and make suggestions for adapting to the workplace during this pandemic. The management of a healthcare institution should recognize these sources of stress in order to implement and improve interventions to maintain the health, safety and well - being of nurses in a timely and effective manner (20).

Therefore, we investigated the possible stressors in nurses working in COVID departments. Also, we searched for the possible differences in the level of stress between nurses working in COVID intensive care unit (ICU) and regular COVID departments.

## OBJECTIVE

The objective of this study is to define the stressors that cause the highest level of stress in nurses/technicians in COVID intensive care units and regular COVID departments and to compare stressors between these two departments at the University Hospital Centre Zagreb (UHC Zagreb).

## SUBJECTS AND METHODS

The research was conducted at UHC Zagreb in the period from March 15 to May 20, 2022, and a total of 194 nurses /technicians participated. In that period were distributed a total of 194 questionnaires, one of which was returned incompletely filled for one question.

After obtaining permission from the Ethics Committee of the UHC Zagreb - tertiary health care centre, the questionnaires were distributed to all nurses/technicians, working in the COVID department and the COVID ICU at the UHC Zagreb at the time of this research.

For the purposes of the research, questionnaire on stressors at the workplace of hospital health workers was used. The questionnaire has been validated in the Croatian language (17) and consists of 3 parts; the first part contains demographic data of the respondents (gender, age, marital status, number of children, place of work, vocational training, length of total working experience and length of work in COVID), the second part of the questionnaire consists of 34 questions that describe certain stress factors and are answers are offered on a Likert-type scale (The lowest value is 1 - not stressful at all and the highest value is 5 - extremely stressful) and the last part of the questionnaire consists of 3 open-ended questions to which respondents can add stressors to which they are exposed, which were not previously mentioned.

## STATISTICAL ANALYSIS

The demographic data of the respondents were presented with descriptive statistics, and the normality of the distribution of continuous numerical variables was tested with the D'Agostino-Pearson test. The existence of differences between categorical variables was tested with the $\chi^2$-test. The existence of differences between two continuous numerical variables was tested by Mann-Whitney test, while the existence of differences between more than two continuous numerical variables was tested by analysis of variance (ANOVA).

The sum of all answers for each respondent was compared by a t-test for one sample with the neutral value of all answers per individual respondent 102 (if the respondent answered all questions with a neutral answer of 3, the sum of all answers of an individual respondent would be 102 : 34 questions with a Likert scale x 3). Also, the sum of the responses of all respondents for each individual question was compared with the neutral value of all responses by a t-test for one sample.

The association between two continuous numerical variables was tested with a non-parametric rank correlation test (Spearman's rho).

All statistical analyses were performed using MedCalc 20.110 (MedCalc Software Ltd, Ostend, Belgium). P values less than 0.05 were considered statistically significant.

## SAMPLE

A total of 194 nurses/technicians between the ages of 26 and 57, with different levels of education (82 general nurses/technicians, 99 bachelor's degrees in nursing and 13 graduates/master's degrees in nursing) who voluntarily agreed to the research participated in the research. From the total number of respondents; 57 respondents were male and 137 female.

## RESULTS

The results of the research indicate that there was no difference in the marital status of the respondents regarding gender (p=0.248) and place of work (p=0.836) (Table 1).

***Table 1.*** *- Marital status of respondents*

| | Marriage status. N (%) | | | | | Total |
|---|---|---|---|---|---|---|
| | Single | Married | Cohabiting | Divorced | Widowed | |
| total | 132 (68) | 41 (21) | 16 (8) | 3 (2) | 1 (1) | 193 (99)* |
| Gender | | | | | | |
| Male | 41 (72) | 9 (16) | 6 (10) | 0 | 1 (2) | 57 (100) |
| Female | 91 (67) | 32 (24) | 10 (7) | 3 (2) | 0 | 136 (99)* |
| COVID | | | | | | |
| Department | 14 (67) | 6 (28) | 1 (5) | 0 | 0 | 21 (100) |
| ICU | 118 (68) | 41 (20) | 16 (9) | 3 (2) | 1 (1) | 172 (99)* |

* one respondent did not declare her marital status

No differences were found in the possession of children with regard to the gender of the respondents (p=0.527) and considering the respondent's place of work (p=0.624)(Table 2).

***Table 2. -*** *Number of respondents' children*

| | Children N (%) | | Total |
|---|---|---|---|
| | Yes | No | |
| Total | 47 | 147 | 194 (100) |
| Gender | | | |
| Male | 12 (21) | 45 (79) | 57 (100) |
| Female | 35 (25) | 102 (75) | 137 (100) |
| COVID | | | |
| Department | 6 (29) | 15 (71) | 21 (100) |
| ICU | 41 (24) | 132 (76) | 173 (100) |

Differences in the level of education have been established with regard to gender, that is, women have a higher level of education (p= 0.009), no differences were found in the level of education regarding work in the COVID department and the COVID ICU (p=0.093). The results indicate that there are differences in the level of education with regard to the length of service in COVID, graduates/masters in nursing work longer in COVID (p=0.043),(ANOVA). Different levels of education differ according to age. (p=0.022) (ANOVA). There is no difference in the level of education with respect to the total length of service (p=0.474) (ANOVA) (Table 3).

*Table 3.* - *Level of education*

| | Level of education. N (%) | | | Total |
|---|---|---|---|---|
| | Nurse/Technician | Bachelor's Degree | Master's Degree in Nursing | |
| Total | 82 (42) | 99 (51) | 13 (7) | 194 (100) |
| **Gender** | | | | |
| Male | 33 (58) | 23 (40) | 1 (2) | 57 (100) |
| Female | 49 (36) | 76 (55) | 12 (9) | 137 (100) |
| **COVID** | | | | |
| Department | 13 (62) | 6 (29) | 2 (9) | 21 (100) |
| ICU | 69 (40) | 93 (54) | 11 (6) | 173 (100) |
| | **Median, range (IQR), years** | | | |
| Age | 24, 20-57 (6) | 27, 23-49 (8) | 29, 24-43 (8) | - |
| **Length of service** | | | | |
| Total | 5, 1-36 (5) | 5, 1-29 (7) | 5, 2-25 (8) | - |
| On COVID | 0.17, 0.08-2.08 (0.17) | 0.17, 0.08-1.00(0.08) | 0.25, 0.17-1.00 (0.17) | - |

The results indicate that the most significant stress factor for nurses working in the COVID department and the COVID ICU is work overload, the following stress factors were further ranked: inadequate personal income, insufficient number of employees, everyday unpredictable or unplanned situations, administrative tasks, inadequate workspace, misinforming patients by the media and other sources (Table 4).

Differences between individual stress factors for nurses between the COVID department and the COVID ICU were determined: inadequate workspace, poor organization of work, little possibility of advancement and promotion, poor communication with superiors, conflicts with superiors and conflicts with colleagues are stress factors that higher in nurses working in the COVID ICU (Table 4).

***Table 4.*** *- Sum of all answers for each question*

| Question | All respondents | | COVID DEPARTMENT | | COVID ICU | | P* (COVID DEPARTMENT vs. COVID ICU) |
|---|---|---|---|---|---|---|---|
| | average Sum (neutral total 582) | average | average Sum (neutral total 63) | average | average Sum (neutral total 519) | average | |
| 1 | 785 | 4.05 | 84 | 4.00 | 701 | 4.05 | 0.806 |
| 2 | 645 | 3.32 | 51 | 2.43 | 594 | 3.43 | <0.001 |
| 3 | 528 | 2.72 | 56 | 2.67 | 472 | 2.73 | 0.814 |
| 4 | 621 | 3.20 | 71 | 3.38 | 550 | 3.18 | 0.515 |
| 5 | 659 | 3.40 | 68 | 3.24 | 591 | 3.42 | 0.542 |
| 6 | 651 | 3.36 | 65 | 3.10 | 586 | 3.39 | 0.301 |
| 7 | 665 | 3.43 | 71 | 3.38 | 594 | 3.43 | 0.847 |
| 8 | 540 | 2.78 | 64 | 3.05 | 476 | 2.75 | 0.230 |
| 9 | 603 | 3.11 | 66 | 3.14 | 537 | 3.10 | 0.877 |
| 10 | 654 | 3.37 | 70 | 3.33 | 584 | 3.38 | 0.860 |
| 11 | 611 | 3.15 | 72 | 3.43 | 539 | 3.12 | 0.180 |
| 12 | 642 | 3.31 | 62 | 2.95 | 580 | 3.35 | 0.143 |
| 13 | 680 | 3.54 | 58 | 2.76 | 622 | 3.64 | 0.002 |
| 14 | 774 | 3.99 | 112 | 3.78 | 662 | 3.83 | 0.340 |
| 15 | 582 | 3.00 | 47 | 2.24 | 535 | 3.09 | 0.003 |
| 16 | 547 | 2.82 | 45 | 2.14 | 502 | 2.90 | 0.059 |
| 17 | 598 | 3.08 | 54 | 2.57 | 544 | 3.14 | 0.048 |
| 18 | 689 | 3.55 | 78 | 3.71 | 611 | 3.53 | 0.478 |
| 19 | 768 | 3.96 | 82 | 3.90 | 686 | 3.97 | 0.808 |
| 20 | 717 | 3.70 | 72 | 3.43 | 645 | 3.73 | 0.237 |
| 21 | 497 | 2.56 | 40 | 1.90 | 457 | 2.64 | 0.009 |
| 22 | 476 | 2.45 | 41 | 1.95 | 435 | 2.51 | 0.042 |
| 23 | 481 | 2.48 | 43 | 2.05 | 438 | 2.53 | 0.084 |
| 24 | 443 | 2.30 | 48 | 2.29 | 395 | 2.30 | 0.970 |
| 25 | 566 | 2.92 | 60 | 2.86 | 506 | 2.92 | 0.824 |
| 26 | 652 | 3.36 | 63 | 3.00 | 589 | 3.40 | 0.176 |
| 27 | 600 | 3.09 | 64 | 3.05 | 536 | 3.10 | 0.857 |
| 28 | 667 | 3.44 | 58 | 2.76 | 609 | 3.52 | 0.164 |
| 29 | 637 | 3.28 | 67 | 3.19 | 570 | 3.29 | 0.700 |
| 30 | 598 | 3.08 | 57 | 2.71 | 541 | 3.13 | 0.136 |
| 31 | 546 | 2.81 | 57 | 2.71 | 489 | 2.83 | 0.705 |
| 32 | 556 | 2.87 | 52 | 2.48 | 504 | 2.91 | 0.145 |
| 33 | 616 | 3.18 | 69 | 3.29 | 547 | 3.16 | 0.662 |
| 34 | 554 | 2.86 | 58 | 2.76 | 496 | 2.87 | 0.712 |

## DISCUSSION

The results of this research indicate that the most significant stress factor for nurses working in the COVID departments and the COVID ICU is work overload, which indicates an increased workload at the workplace of nurses who care for COVID patients.

A study conducted in Iran in which the authors compared the level of burnout in nurses working in COVID departments to those working in other wards indicated that there was a significantly higher level of stress in nurses working in COVID departments. Among the most significant risk factors for burnout, they consider: experience in caring for patients with COVID infection, hospital resources and stress at work (21).

On the other hand, there is no research investigating the differences in the level of stress between nurses in the COVID departments and the COVID ICU, as we did in our research.

Our results indicate that there is no difference in the level of stress between nurses working in the COVID departments compared to nurses working in the COVID ICU. The difference in the treatment of COVID patients who are hospitalized in COVID departments compared to patients in the COVID ICU is the need for a larger number of nurses on shift in the ICU, most of the patients are on mechanical ventilation and are vitally endangered, unlike the wards where they are patients who receive a high flow of oxygen using NIV or different oxygen masks are not vitally endangered, and accordingly, our hypothesis that work in the COVID ICU is more stressful than work in the COVID department is rejected.

The insufficient number of employees is one of the most significant factors contributing to the high level of stress among nurses in the COVID department. Namely, the frequent absence of nurses due to isolation or self-isolation and, consequently, frequent changes in work schedules further emphasized the general shortage of nurses at the labour market.

Other studies also indicate a connection between the high level of stress of nurses who work with COVID patients with a high workload and an insufficient number of nurses (22, 23, 24).

The stress factor of nurses, which is ranked according to the results of our research, is in the fourth place, everyday unpredictable and unplanned situations. Considering great pressure to admit patients with COVID infection at the time of the conduction of this research, every available bed was waiting for the admission of new patients, and accordingly the dynamics of admission and discharge were increased.

With each admission of a new patient, the nurses were daily faced with different cases and comorbidities that existed in patients that they had not encountered in their work until then.

One of more significant factors of nurses' stress according to our results are administrative tasks. According to the Act on Nursing in the Republic of Croatia, nursing documentation is mandatory and the nurse is obliged to keep nursing documentation that records all procedures performed during 24 hours. Considering the raising administrative workload the nurses are burdened with, we believe there is a need to adjust the hospital information system in order to simplify the application of nursing documentation and reduce the time for documentation patient care and progress and suggest methods of reducing the workload by changing the existing functionalities in the information system (25, 26).

According to the results of this research, the lowest level of stress for nurses is caused by conflicts with the patient and family members, which was expected given the great demands of patient care and their great gratitude to the staff.

## CONCLUSION

Our results indicate that there is no difference in the level of stress between nurses working in the COVID departments compared to nurses working in the COVID ICU. According to the results of this research, the lowest level of stress for nurses is caused by conflicts with the patient and family members, which was expected given the great demands of patient care and their great gratitude to the staff.

Due to the high prevalence of stress among nurses who work with COVID patients, it is necessary to monitor the symptoms of burnout and provide support in the workplace. According to the results of our research, there is a need to optimize working conditions and invest efforts in order to reduce the workload.

## LITERATURE

1. Batra K, Singh TP, Sharma M, Batra R, Schvaneveldt N. Investigating the Psychological Impact of COVID-19 among Healthcare Workers: A Meta-Analysis. International Journal of Environmental Research and Public Health. 2020;17(23).

2. Chen Q, Liang M, Li Y, Guo J, Fei, D, Wang L, He L. I., Sheng C, Cai Y, Li X, Wang J, Zhang. Mental health care for medical staff in China during the COVID-19 outbreak. The Lancet Psychiatry. 2020; 7(4), e15– e16.

3. Çınar D, Kılıç Akça N, Zorba Bahçeli P, Bağ Y. Perceived stress and affecting factors related to COVID-19 pandemic of emergency nurses in Turkey. Journal of nursing management. 2021; 29(7), 1916–1923.

4. Collins S, Couture B, Kang MJ, Dykes P, Schnock K, Knaplund C, Chang F, Cato K. Quantifying and Visualizing Nursing Flowsheet Documentation Burden in Acute and Critical Care. Annual Symposium proceedings, AMIA Symposium. 2018; 348–357.

5. Farquharson B, Bell C, Johnston D, Jones M, Schofield P, Allan J, Ricketts I, Morrison K, Johnston M. Nursing stress and patient care: Real-time investigation of the effect of nursing tasks and demands on psychological stress, physiological stress and job performance: Study protocol. Journal of Advanced Nursing. 2013; 69, 2327– 2335.

6. Gonge H, Jensen LD, Bonde JP. Are psychosocial factors associated with low back pain among nursing personnel? Work & Stress. 2002;16, 79– 87.

7. Hall RCW, Hall RCW, Chapman MJ. The 1995 Kikwit Ebola outbreak: lessons hospitals and physicians can apply to future viral epidemics. Gen Hosp Psychiatry. 2008;30(5):446–52.

8. Heesakkers H, Zegers M, Van Mol M, Van den Boogaard M. The impact of the first COVID-19 surge on the mental well-being of ICU nurses: A nationwide survey study. Intensive & critical care nursing. 2021; 65, 103034.

9. Kang L, Ma S, Wang Y, Cai Z, Hu J, Wei N, Wu J, Du H, Chen T, Li R et al. Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. Brain Behav. Immun. 2020; 87:11–17.

10. Lai CC, Shih TP, Ko WC, Tang HJ, Hsueh PR. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease (COVID-19): The epidemic and the challenges. International Journal of Antimicrobial Agents. 2020 Mar 1;55(3):105924.

11. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, Wu J, Du H, Chen T, Li R et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA Netw. Open. 2020; 3(3).

12. Lee SH, Juang YY, Su YJ, Lee HL, Lin YH, Chao CC. Facing SARS: psychological impacts on SARS team nurses and psychiatric services in a Taiwan general hospital. Gen Hosp Psychiatry. 2005;27(5):352–8.

13. Lehmann M, Bruenahl CA, Löwe B, Addo MM, Schmiedel S, Lohse AW et al.

Ebola and psychological stress of health care professionals. Emerg Infect Dis. 2015 May;21(5):913–4.

14. Leveck ML, Jones, CB. The nursing practice environment, staff retention and quality of care. Research in Nursing and Health,. 1996; 19, 331– 343.

15. Liu Z, Han B, Jiang R, Huang Y, Ma C, Wen J, Zhang T, Wang Y, Chen H, Yongchun M. Mental health status of doctors and nurses during COVID-19 epidemic in China. SSRN J. 2020.

16. McGrath A, Reid N, Boore J. Occupational stress in nursing. International Journal of Nursing Studies. 2003; 40(5), 555– 565.

17. Milošević M et al. 'Validacija upitnika o stresorima na random mjestu bolničkih zdravstvenih djelatnika', Sigurnost. 2009;51(2), str. 75-84.

18. Nikeghbal K, Kouhnavard B, Shabani A, Zamanian Z. COVID-19 Effects on the Mental Workload and Quality of Work Life in Iranian Nurses. Annals of global health. 2021; 79-87.

19. Oyeleye O, Hanson P, O'Connor N, Dunn D. Relationship of workplace incivility, stress and burnout on nurses' turnover intentions and psychological empowerment. Journal of Nursing Administration. 2019; 43(10), 536– 542.

20. Arnetz JE, Goetz CM, Arnetz BB, Arble E. Nurse Reports of stressful Situations during the COVID-19 Pandemic: Qulaitative Analysis of Survey Responses. Int J Environ Res Public Health. 2020.

21. Pérez-Fuentes M, Molero - Jurado MM, Gázquez-Linares JJ, Simón-Márquez MM. Analysis of burnout predictors in nursing: Risk and protective psychological factors. Eur. J. Psychol. Appl. Leg. 2018; 11:33–40.

22. Rossi R, Socci V, Pacitti F, Di Lorenzo G, Di Marci A, Siracusano A, Rossi A. Mental health outcomes among frontline and second-line health care workers during the coronavirus disease 2019 (COVID-19) pandemic in Italy. JAMA Netw. Open. 2020 May 1;3(5).

23. Sarboozi Hoseinabadi T, Kakhki S, Teimori G, Nayyeri S. Burnout and its influencing factors between frontline nurses and nurses from other wards during the outbreak of Coronavirus Disease - COVID-19- in Iran. Investigacion y educacion en enfermeria. 2020; 38(2).

24. Worringer B, Genrich M, Müller A, Gündel H, Contributors of the SEEGEN Consortium. Angerer P. Hospital medical and nursing managers' perspective on the mental stressors of employees. Int. J. Environ. Res. Public Health. 2020;17:5041.

25. World Health Organization Burn-Out an "Occupational Phenomenon":

International Classification of Diseases. (accessed on 22 October 2020); Available online: https://www.who.int/mental_health/eviden ce/burn-out/en/

26. Yin Z, Liu Y, McCoy AB, Malin BA, Sengstack PR. Contribution of Free-Text Comments to the Burden of Documentation: Assessment and Analysis of Vital Sign Comments in Flowsheets. Journal of medical Internet research. 2021; 23(3).

# ČIMBENICI STRESA MEDICINSKIH SESTARA U COVID ODJELIMA

Kristina Hanžek[1] , Vesna Bratić[2] , Anita Lukić[3] , Slobodan Mihaljević[2]

[1] Klinika za neurologiju, Klinički bolnički centar Zagreb, Kišpatićeva 12, 10 000 Zagreb, Croatia

[2] Klinika za anesteziologiju, reanimatologiju i intenzivnu medicinu i terapiju bolu, Klinički bolnički centar Zagreb, Kišpatićeva 12, 10 000 Zagreb, Croatia

[3] Odjel za anesteziologiju, reanimatologiju i intenzivno liječenje, Opća bolnica Varaždin, Ivana Meštrovića 1, 42 000 Varaždin, Croatia

## SAŽETAK

Cilj: Definirati stresore koji na radnom mjestu u COVID jedinicama intenzivne skrbi i COVID odjelima uzrokuju najvišu razinu stresa kod medicinskih sestara/tehničara i usporediti stresore između navedenih odjela.

Metode: Za potrebe istraživanja korišten je validiran upitnik o stresorima na radnom mjestu bolničkih zdravstvenih djelatnika. Upitnici su podijeljeni na 194 medicinske sestre / tehničare koji rade na COVID odjelima. Upitnik se sastoji od 3 dijela; u prvom dijelu su demografski podaci ispitanika, drugi dio upitnika sastoji se od 34 pitanja koja opisuju pojedine čimbenike stresa te su ponuđeni odgovori na skali Likertovog tipa i zadnji dio upitnika sastoji se od 3 pitanja otvorenog tipa na koje ispitanici mogu nadopisati stresore kojima su izloženi, a koji nisu prethodno spomenuti.

Rezultati: Utvrđene su razlike u razini obrazovanja obzirom na duljinu rada s COVID bolesnicima, u COVID odjelu su duže radile medicinske sestre/tehničari više razine obrazovanja, P=0.043. Nisu utvrđene razlike u jačini stresa između medicinskih sestara/tehničara koje rade u COVID odjelu u odnosu u COVID JIL, P=0.181. Među čimbenicima koji uzrokuju najvišu razinu stresa su: preopterećenost poslom, neadekvatna osobna primanja, nedostatan broj djelatnika i svakodnevne nepredvidive i neplanirane situacije.

Zaključak: Naši rezultati pokazuju da nema razlike u razini stresa između sestara koje rade u COVID odjelima u usporedbi s medicinskim sestrama koje rade u COVID JIL-u. Zbog visoke prevalencije stresa među medicinskim sestrama koje rade s COVID bolesnicima potrebno je pratiti simptome sagorijevanja i pružiti podršku na radnom mjestu. Prema rezultatima našeg istraživanja, postoji potreba za optimizacijom radnih uvjeta i ulaganjem napora u cilju smanjenja radnog opterećenja.

**Ključne riječi:** stres, medicinske sestre, COVID, odjeli

Autor za korespondenciju: Kristina Hanžek, univ. mag. med. techn.

kristina.hanzek@kbc-zagreb.hr