



Original research article

Czech doctors' views on the prestige and workload of nurses during the COVID-19 pandemic

Aleš Chrdle^{1,2,3,*} , Sylva Bártlová¹ , Ivana Chloubová¹ ¹ University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences, České Budějovice, Czech Republic² Hospital České Budějovice, Infectious Diseases Department, České Budějovice, Czech Republic³ Royal Liverpool University Hospital, Liverpool, United Kingdom

Abstract

Introduction: To assess the impact of the COVID-19 pandemic on nurses, we asked doctors how the pandemic affected the prestige of the nursing profession, what impact it had on nurses in their workplace, and how nurses are prepared for a possible future pandemic.

Methods: A descriptive cross-sectional survey was conducted using a non-standardized questionnaire with 1,203 physicians. The sample of physicians in the Czech Republic was representative regarding gender, age, and region.

Results: According to doctors, the prestige of the nursing profession increased significantly during the pandemic from 6.65 \pm 1.99 SD to 8.08 \pm 1.78 SD on a ten-point scale. An overall increased burden on nurses was reported by 89.1% of doctors, with an adverse effect on social (71.8%), personal (65.9%), and family life (66.2%), but also on the physical (60.8%) and mental (68.6%) health of nurses. Nurses leaving the workplace were reported by 21.4% of doctors. According to the doctors, in the event of a future pandemic, nurses will be a support for the patients (96.1%), the patients's families (95.1%), and their own families (91.4%). Nurses will be able to acquire new competencies (89.6%) and cope with increased physical (92.2%) and emotional (89.7%) demands. Doctors, however, believe that nurses are less prepared to participate in the reprofiling of the operation of a healthcare facility (84.9%), create new teams (82.2%), train new colleagues (88.4%), and take care of their own physical (84.8%) and mental (83.5%) health.

Conclusion: The increased prestige of the nursing profession during the pandemic contrasts with the negative impacts on nurses' health and quality of life. Some of the riskiest areas in preparing for a future pandemic include nurses' self-care – both mental and physical – and their support for fellow nurses, such as forming new teams, adapting workplaces, and training new colleagues.

Keywords: COVID-19; Nurse; Pandemic preparedness; Professional burden; Professional prestige

Introduction

The rapid onset of the COVID-19 pandemic found most nurses and other healthcare professionals worldwide unprepared professionally, physically, and emotionally to cope with the workload of caring for patients with COVID-19 (Fernandez et al., 2020; Šupíková et al., 2022). Nurses were exposed to an increased workload and an increased risk of infection for themselves and their loved ones, and they were expected to adopt new work procedures quickly (Labrague et al., 2018). At the same time, new work teams were being created much faster than before the pandemic as part of the restructuring of inpatient care, and nurses were exposed to more significant demands within the family and community. In addition, during the COVID period, the availability of information from diverse sources of varying quality and credibility increased exponentially thanks to social networks and mass media (Boudreau et al., 2022). In general, in such times, there is a higher level of uncertainty and associated anxiety about the future (Hossain et al., 2020).

In a pandemic, there is an escalation of chronic overloading of nurses (as well as other healthcare workers) in the physical, intellectual, and, especially, emotional domains (Gustafsson and Hemberg, 2022). Ensuring the competence of nurses and nursing teams in terms of professional skills, the use of personal protective equipment, up-to-date information concerning the disease, psychosocial support, education, and motivation is crucial to maintaining the functionality of the healthcare system (Choi et al., 2020; De Benedictis et al., 2022).

Research on the role of nurses shows that their willingness to function under extraordinary conditions during a pandemic increases with knowledge, practice, and autonomy (Al-Hunaihi et al., 2019). During a pandemic, nurses face new roles, and role conflicts with existing ones (Chrdle et al., 2024). Ethical conflicts, compassion fatigue, and burnout syndrome are just some of the adverse impacts of a pandemic on nurses' health (Kisa, 2020; Morgantini et al., 2020). Financial rewards, social support, and adjustments to working conditions lead to a lower incidence of burnout syndrome and feelings of helplessness (Karagöl and Törenli Kaya, 2022).

* **Corresponding author:** Aleš Chrdle, Hospital České Budějovice, Infectious Diseases Department, B. Němcové 585/54, 370 01 České Budějovice, Czech Republic; e-mail: chrdle@email.cz
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The perspective of doctors on the work of nurses is significant – in healthcare setting, doctors are usually the leaders of multidisciplinary teams, whether as owners of private practices or senior staff in inpatient wards or outpatient clinics in joint practices. In addition to overseeing the quality of care provided, the doctor, as a team leader, also bears responsibility for individual team members within their competencies (Bártlová, 2010).

To assess the impact of the COVID-19 pandemic on nurses in the Czech Republic, we asked doctors how the pandemic affected the prestige of the nursing profession and what impact the COVID-19 pandemic had on general nurses in their workplace. We also asked doctors how prepared nurses were to handle a possible future pandemic.

Materials and methods

We used a descriptive and cross-sectional design and conducted a representative sociological survey. We used a non-standardized questionnaire to collect data to determine doctors' opinions on the role of nurses and care for them during the pandemic in the Czech Republic, based on their experience of the COVID-19 pandemic in 2019–2022. The 15-question questionnaire was the result of the operationalization of goals and hypotheses. We defined these based on a theoretical and empirical analysis of the problem. An essential starting point were the interviews conducted with nurses and doctors in outpatient and inpatient care during the qualitative part of the research. These focused on the impact of the COVID-19 pandemic on their work and life (Chrdle et al., 2024; Shivaírová et al., 2023). Based on these interviews, as part of the preliminary research, we identified key areas that quantitative research would focus on and problems that should be addressed. Based on their operationalization, we compiled the first version of the questionnaire. We verified its validity by evaluating experts and target research participants (face and content validity). We also tested the content and construct validity through a preliminary survey of 127 respondents (physicians), where we assessed the formulation and clarity of the questions, the coverage of areas of nurses' work and life that could be affected by the COVID-19 pandemic – and their relevance. We also tested the construct validity using a parallel comparison of data obtained from the preliminary questionnaire to determine the expected correlations between the selected variables.

As part of the field survey, the interviewers approached 1,410 randomly selected doctors and asked them to answer the questionnaire on nurses' work during the pandemic. 207 doctors refused to be interviewed, i.e., 14.7%. 1,203 doctors, i.e., 85.3%, agreed to be interviewed.

1,203 doctors from the Czech Republic, selected by quota selection, were included in the sample. Their composition in terms of individual sociodemographic characteristics was chosen to correspond to the structure of the demography of doctors in the Czech Republic. The sample parameters were constructed based on data from the National Register of Healthcare Workers (NRZP), valid as of August 19, 2021. The set of physicians was representative in terms of gender, age, and region, as detailed in a previous publication (Bártlová et al., 2024b).

The questionnaire contained sociodemographic characteristics and a section regarding the impact of the pandemic on nurses' work and life from the physicians' perspective. This section was covered by separate closed, semi-open, and open questions. Key areas were covered by extensive groups of

closed projective questions in statements related to individual topics; response options are on a standard four-point scale expressing the degree of agreement with the given information. A specific area of research was devoted to the following questions: nurses' readiness to work during the pandemic, the course of the pandemic – how nurses experienced the pandemic, the impact of the pandemic on nurses, the prestige of the nursing profession during the pandemic, and preparedness for a possible future pandemic.

Individual question groups were analyzed by calculating the average values for each sub-question in the group and their subsequent comparison, as well as by calculating the total score for each group and subsequent analysis of their possible relationships with selected features in the questionnaire.

The reliability measurement for each question group used the Cronbach's alpha test. Based on the results, it can be stated that the internal consistency values for each question group ranged from 0.731 to 0.873, which indicates a high level of internal consistency.

The field survey was conducted using standardized, controlled, personal, face-to-face interviews with respondents. The field survey was conducted throughout the Czech Republic from November 12 to November 24, 2022. 210 professional interviewers from INRES-SONES, v.o.s. conducted the interviews and data collection.

The prestige of the nursing profession

Doctors were asked to rate the prestige of the nursing profession on a 10-point scale before and during the COVID-19 pandemic. Number 1 on the scale indicated the lowest prestige, and 10 the highest prestige.

Increased burden and consequences on the quality of life and health

Doctors' opinions on the impacts of the COVID-19 pandemic on personal, social, and working lives of nurses during this period were surveyed using a group of projective questions. Doctors were presented with eight statements, to which they responded using a standardized scale of four possible answers, expressing their level of agreement with the given statement.

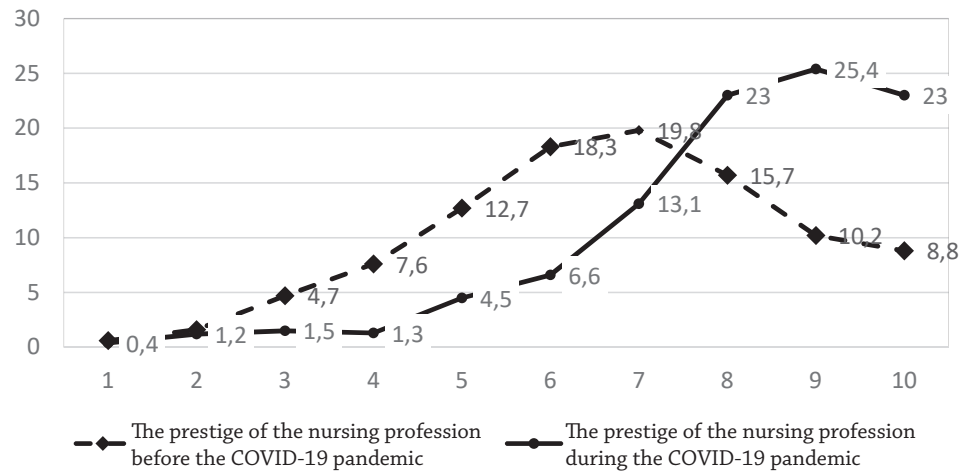
Doctors' realistic expectations of nurses in the event of a future pandemic

The final part of the research was devoted to physicians' opinions on what do nurses need to successfully fulfill their roles in a possible future pandemic. Physicians were presented with 13 nursing skills that, according to physicians, are a prerequisite for successfully managing a future pandemic. For each of these, physicians expressed on a standard four-point scale whether or not they observed the given skill in nurses in their workplace.

Results

The prestige of the nursing profession

From the relative frequencies expressing the assessment of the prestige of the nursing profession before and during the COVID-19 pandemic, it is clear (Chart 1) that, according to the doctors, the prestige of the nursing profession during the pandemic increased compared to the period before the COVID-19 pandemic, very significantly, from an average assessment of 6.65 \pm 1.99 SD to 8.08 \pm 1.78 SD ($p < 0.001$, two-sample t -test).



Note: 1 – lowest prestige, 10 – highest prestige. The values show the percentage of respondents who chose the given rating to evaluate the prestige of the nursing profession before and during the COVID-19 pandemic.

Chart 1. Doctors' opinion on the prestige of the nursing profession before and during the COVID-19 pandemic, $N = 1,203$ (in %)

Increased burden and impact on the quality of life and health

The frequency of doctors' responses to whether nurses were exposed to increased overall burden and whether the COVID-19 pandemic impacted nurses' personal, social, and working lives and their physical and mental health are shown in Table 1. 89.1% of the surveyed doctors believed (fully or somewhat agreed with the statement about increased overall

burden) that nurses were exposed to increased overall burden during the COVID-19 pandemic. In individual domains, a large proportion of respondents fully or somewhat agreed that this burden harmed social life (71.8%), personal life (65.9%), and family life (66.2%), as well as the physical (60.8%) and mental (68.6%) health of nurses. 34.6% of the surveyed doctors reported that nurses had thought about leaving the workplace, and 21.4% noted that nurses were leaving the workplace.

Table 1. Doctors' opinions on the perceived changes in the personal and professional lives of nurses during the COVID-19 pandemic, $N = 1,203$ (in %)

Perceived changes	Fully agree	Somewhat agree	Somewhat disagree	Fully disagree
Increased workload	47.1	42.0	9.6	1.3
Changes in social life	28.8	43.0	24.7	3.5
Changes in personal life	31.1	34.8	29.9	4.2
Changes in family life	31.1	35.1	27.7	6.1
Adverse impact on nurses' physical health	24.4	36.4	31.6	7.6
Adverse impact on nurses' mental health	24.4	44.2	24.0	7.4
Considerations about leaving the workplace	11.0	23.6	38.5	26.9
Leaving the workplace	10.1	11.3	26.4	52.2

More precisely, the mean values can express doctors' opinions on the intensity of the perceived changes in nurses' personal and professional lives during the COVID-19 pandemic. Their comparison is made possible by the fact that a standard four-point scale of responses with the levels "completely agree", "somewhat agree", "somewhat disagree", and "completely disagree" was used to assess the level of perceived changes. We chose the arithmetic mean as the key mean value, where the smaller its size, the greater the degree of agreement with the given statement. The size of the measured mean values is shown in Table 2.

The comparison of mean values suggests that, in the eyes of the doctors, the most significant changes experienced by nurses

are an increased overall burden and effect on their social, personal, and family lives. This is followed by an adverse effect on mental health and, with a small gap, the physical health of the nurses. The least reported changes are nurses leaving the workplace or considering leaving. The variance and standard deviation indicate that responses were most varied when it came to the assessment of nurses leaving the workplace.

Doctors' expectations of the nurses in the event of a future pandemic

Once the waves of the COVID-19 pandemic had subsided, the interviewed doctors drew on their own experiences to reflect on what can realistically be expected of the nurses in the work-

Table 2. Doctors' opinions ($n = 1,203$) on the perceived changes in the personal and professional lives of nurses during the COVID-19 pandemic – comparison of mean values

Perceived changes	N	Mo	Me	Means	s^2	s
Increased workload	1,203	1	2	1.653	0.499	0.707
Changes in social life	1,203	2	2	2.029	0.673	0.821
Changes in personal life	1,203	2	2	2.073	0.774	0.880
Changes in family life	1,203	2	2	2.087	0.823	0.907
Adverse impact on nurses' physical health	1,203	2	2	2.225	0.815	0.903
Adverse impact on nurses' mental health	1,203	2	2	2.145	0.759	0.871
Considering leaving the workplace	1,203	3	3	2.814	0.910	0.954
Leaving the workplace	1,203	4	4	3.205	0.998	0.999

Note: Mo – modus; Me – median; s^2 – variance; s – standard deviation

Table 3. Doctors' opinions on nurses' preparedness to successfully handle the burden of a future pandemic, $N = 1,203$ (in %)

In the event of a future pandemic, nurses will be able to:	Completely agree	Somewhat agree	Somewhat disagree	Completely disagree
Manage the increased physical demands of the profession	34.3	57.9	7.3	0.5
Manage the increased mental demands of the profession, including working in greater uncertainty	31.8	57.9	8.9	1.4
Obtain and critically process available information and disinformation from public sources	28.6	57.4	12.8	1.2
Be a support to the patients	53.3	42.8	3.2	0.7
Be a support to the patients' families	50.3	44.8	4.2	0.7
Learn and acquire new competencies	44.3	45.3	9.6	0.8
Actively participate in reprofiling the operation of the healthcare facility	26.1	58.8	14.4	0.7
Participate in the creation of new teams during reprofiling	24.8	57.4	16.5	1.3
Actively participate in training new employees	39.7	49.0	10.6	0.7
Talk openly about difficult topics (including end-of-life conversations)	33.7	54.7	10.2	1.4
Take care of their own physical health and regeneration	35.8	49.0	12.6	2.6
Take care of their own mental health and prevent burnout	32.7	50.8	14.3	2.2
Manage the care of their own family members (children, seniors)	39.4	52.0	6.6	2.0

place during a future pandemic or similarly challenging professional situations (Table 3).

Most doctors agreed (based on the sum of the answers "I completely agree" and "I somewhat agree") that nurses in such situations would support patients (96.1%) and their families (95.1%). Similarly, doctors were entirely or somewhat convinced of the ability of nurses to learn and acquire new competencies (89.6%) and manage the increased physical (92.2%) and mental (89.7%) burden of the profession. 86.0% of the doctors agreed that nurses could obtain and critically process available information and disinformation from public sources. 88.4% stated that nurses could handle open communication on complex topics, including end-of-life conversations. 84.9% of doctors said that nurses were prepared and able to actively participate in reprofiling the health facility's operations, 82.2% stated that nurses could contribute to creating in creating new teams, and 88.4% said that nurses would

participate in training new colleagues. The ability of nurses to take care of their physical health and regeneration during a future pandemic was assessed favourably by 84.8% of the surveyed doctors. Meanwhile, 83.5% think that nurses would be able to take care of their mental health and prevent burnout. Nurses can take care of their family members (children, seniors) completely or somewhat well, according to 91.4% of the surveyed doctors.

The analysis of mean values confirmed the findings outlined above (Table 4). This suggests that, according to the interviewed doctors, nurses are primarily prepared to support patients and their families and to learn and acquire new competencies – key elements for the successful management of any future pandemic. The worst rated is the ability of nurses to actively participate in reprofiling the operation of a healthcare facility and to create new teams during the reprofiling.

Table 4. Doctors' opinions on the capability of nurses to successfully manage a future pandemic – Comparison of mean values

	N	Mo	Me	Means	s ²	s
Manage the increased physical demands of the profession	1,203	2	2	1.741	0.368	0.607
Manage the increased mental demands of the profession, including working in greater uncertainty	1,203	2	2	1.799	0.423	0.651
Obtain and critically process available information and disinformation from public sources	1,203	2	2	1.865	0.442	0.665
Be a support to the patients	1,203	1	0	1.515	0.359	0.600
Be a support to the patients' families	1,203	1	0	1.555	0.377	0.614
Learn and acquire new competencies	1,203	2	2	1.670	0.464	0.681
Actively participate in reprofiling the operation of the healthcare facility	1,203	2	2	1.898	0.424	0.651
Participate in the creation of new teams during reprofiling	1,203	2	2	1.943	0.462	0.680
Actively participate in training new employees	1,203	2	2	1.723	0.453	0.673
Talk openly about difficult topics (including end-of-life conversations)	1,203	2	2	1.793	0.453	0.673
Take care of their own physical health and regeneration	1,203	2	2	1.820	0.555	0.745
Take care of their own mental health and prevent burnout	1,203	2	2	1.860	0.536	0.723
Manage the care of their own family members (children, seniors)	1,203	2	2	1.711	0.457	0.676

Note: Mo – modus; Me – median; s² – variance; s – standard deviation

Discussion

Nurses dedicate their physical, mental, and emotional strength to their profession, often at the expense of their personal, family, or social well-being (Nemeth and Papp, 2024). The provision of healthcare is based on a broad social contract between the healthcare professionals and the society. For this social contract to be sustainable, balance and reciprocity are necessary, i.e., a return value by the society towards the healthcare professionals needs be apparent.

Part of such returned value is also the prestige of the profession. According to the interviewed doctors, the prestige of the nursing profession increased during the pandemic – from slightly above-average values to very high ratings. Before the pandemic, most doctors rated the prestige of the nursing profession slightly above average. During the pandemic, however, three quarters of doctors considered the prestige of the nursing profession very high (rating 8, 9, or 10). Before the pandemic, only a third of doctors rated the prestige of the nursing profession this highly (Chart 1). We observed a similar significant increase in the prestige of the nursing profession during the COVID-19 pandemic when interviewing nurses (Bártlová et al., 2024a).

However, the increase in the prestige of the nursing profession during the pandemic, associated with increased workload and frequent role conflicts (Chrdle et al., 2024), should be related to further compensation from the society so that the reckoning at the end of the pandemic does not result in a profound personal loss for the nurses despite the high prestige and fading admiration (Mohammed et al., 2021). Our research does not reveal how the perception of the prestige of the nursing profession changed after the pandemic, because the time frame of our questionnaire did not allow for such assessment. On the other hand, interviewing during the pandemic enabled doctors a more authentic assessment of the current perception of the nurses' prestige.

The ability and obligation of healthcare professionals to provide quality healthcare during a pandemic has its own

vaguely defined limits (Cox, 2020; Halberg et al., 2021). One of the outcomes of looking back at the pandemic and its impacts on nurses is a description of reaching or exceeding these limits and the resulting excessive burden that nurses bore during the pandemic.

Most surveyed doctors (almost 90%) agreed that nurses were under increased burden during the COVID-19 pandemic. This was also reflected in the smallest variance of responses in the statistical evaluation (arithmetic mean 1.653, variance of arithmetic means $s^2 = 0.499$). Approximately two-thirds of respondents believed this situation was associated with disruption to nurses' personal, family, and social lives (mean rating in the range of 2.0–2.1, with a variance of arithmetic means $s^2 = 0.673, 0.774$ and 0.823). This was also associated with an observed deterioration in nurses' mental and, to a lesser extent, physical health (Table 1). Although we did not assess the causality of individual categories of burden, it is unsurprising that one-third of respondents reported that nurses were considering leaving their profession, and one-fifth of respondents witnessed some nurses leaving their current workplace.

Understanding the impacts on nurses' overall health may help to establish support mechanisms during the next pandemic, so that nurses can manage their roles and fulfil their part of the social contract (Cox, 2020).

Doctors' realistic expectations regarding the abilities of the nurses necessary to manage the pandemic in the future are in line with the previous part of the survey. On the one hand, doctors are very confident that nurses will support patients and their families (53.3% and 50.3% of respondents completely agree with these statements). Similarly, 44.3% of doctors were fully convinced about the ability of nurses to learn and acquire new competencies.

In other statements, many doctors chose an answer around the middle, i.e., "I somewhat agree", or "I somewhat disagree". This accumulation of uncertainty is evident in the statements about the critical processing of information and disinformation from public sources (57.9% somewhat agree, but 12.8% of doctors somewhat disagree with nurses' preparedness in this area). Similarly, answers accumulated around the middle are

evident in the area of active reprofiling of operations (58.8% somewhat agree, 14.4% somewhat disagree), the ability to create new teams (57.4% somewhat agree, 16.5% somewhat disagree), and active training of new colleagues (49.0% somewhat agree, 10.6% somewhat disagree).

This accumulation around the middle may manifest uncertainty in the answers when the respondents had to decide dichotomously, i.e., somewhat in favour or somewhat against the given statement. It would certainly be interesting to repeat this assessment on a 10-point or 100-point scale, or a visual analogue scale instead of a 4-point scale.

In the case of critical processing of health information and disinformation, we can assume that this is a societal phenomenon that does not only concern nurses or healthcare professionals in general (Snyder Sulmasy et al., 2024). However, in the case of reprofiling the operation of a healthcare facility, creating new teams, and actively training new colleagues, this is a locally influenced and solvable issue that requires conscious, systematic, and highly active intervention at an individual healthcare facility level.

In the first part, there are similar assessments of the impact of the pandemic on the personal and family life of nurses (Table 1), but a different assessment of the ability of nurses to manage the care of their family members (6.6% doctors somewhat disagree, 2.0% completely disagree). Meanwhile, nurses are more likely to struggle to manage their physical health and regeneration (12.6% of doctors somewhat disagree, 2.0% completely disagree). According to 14.3% of doctors, the ability of nurses to take care of their mental health and prevent burnout during another pandemic is somewhat of a problem and an apparent problem according to 2.2%. It is necessary to emphasize that doctors were repeatedly reminded to answer according to the current situation in their workplace, not according to their opinions about the situation among nurses in general. These conclusions can be worrying when nurses are willing to fully take care of their patients and their families, more or less well for their own families, but to a lesser extent of their work teams and themselves.

Conclusion

The COVID-19 pandemic led to a significant increase in the already above-average prestige of the nursing profession. However, according to the opinions of a representative sample of Czech doctors, this increase in prestige was accompanied by an overall increased burden on nurses and a significant disruption to the quality of their personal, family, and social lives. According to doctors, the mental and physical health of nurses was also worryingly disrupted.

The areas we have identified as most at risk in a possible future pandemic include nurses' self-care (mental and physical health) and care for other nurses – creating new teams, reprofiling workplaces, and training new colleagues. These areas should become the subject of targeted educational and training interventions for nurses in undergraduate training and nurses in practice. When it comes to the healthcare facility management, the results of this research can support conscious and systematic interventions and employee development programs at the level of individual healthcare facility. Thanks to this, nurses (and other healthcare professionals) will be better prepared for a possible future pandemic or similar stressful situation. Thus, material and immaterial losses caused by subsequent incapacity for work or nurses leaving their jobs can be prevented.

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Ethical aspects and conflict of interest

The authors have no conflict of interest to declare.

References

1. Al-Hunaishi W, Hoe VC, Chinna K (2019). Factors associated with healthcare workers willingness to participate in disasters: a cross-sectional study in Sana'a, Yemen. *BMJ Open* 9(10): e030547. DOI: 10.1136/bmjopen-2019-030547.
2. Bártlová S (2010). Týmová spolupráce z pohledu lékaře. Vztah všeobecná sestra–lékař [The team cooperation between nurses and doctors.] Praha: Zdravotnictví v České republice. Asociace pro rozvoj sociálního lékařství a řízení péče o zdraví, 1998–2015. 13(1): 174–181.
3. Bártlová S, Chloubová I, Chrdle A (2024b). The use of telemedicine technologies in the work of nurses from the perspective of doctors in the Czech Republic. *Clin Soc Work Health* 15(2): 19–26. DOI: 10.22359/cswghi_15_2_04.
4. Bártlová S, Hellerová V, Dolák F, Chloubová I (2024a). Nurses' views and experiences during the COVID-19 pandemic. *Pielęgniarstwo XXI wieku* 23(2): 106–110. DOI: 10.2478/pielxxiw-2024-0019.
5. Boudreau HS, Singh N, Boyd CJ (2022). Understanding the Impact of Social Media Information and Misinformation Producers on Health Information Seeking. Comment on "Health Information Seeking Behaviors on Social Media During the COVID-19 Pandemic Among American Social Networking Site Users: Survey Study". *J Med Internet Res* 24(2): e31415. DOI: 10.2196/31415.
6. Choi KR, Heilemann MV, Fauer A, Mead M (2020). A Second Pandemic: Mental Health Spillover from the Novel Coronavirus (COVID-19). *J Am Psychiatr Nurses Assoc* 26(4): 340–343. DOI: 10.1177/1078390320919803.
7. Chrdle A, Bártlová S, Chloubová I (2024). The doctors' view of a nurse's role during the COVID-19 pandemic: Qualitative research. *J Nurs Soc Stud Public Health Rehabil* 15 (3–4): 89–98. DOI: 10.32725/jnss.2024.007.
8. Cox CL (2020). 'Healthcare Heroes': problems with media focus on heroism from healthcare workers during the COVID-19 pandemic. *J Med Ethics* 46: 510–513. DOI: 10.1136/medethics-2020-106398.
9. De Benedictis A, Gualandi R, Saccoccia S, Pensieri C, Piredda M, De Micco F, et al. (2022). Back to the Roots of Nursing: Qualitative Study on the Experience of Nurses in the Front Line During the COVID-19 Pandemic. *Front Med* 9: 903517. DOI: 10.3389/fmed.2022.903517.
10. Fernandez R, Lord H, Halcomb E, Moxham L, Middleton R, Alananzeh I, Ellwood L (2020) Implications for COVID-19: A systematic review of nurses' experiences of working in acute care hospital settings during a respiratory pandemic. *Int J Nurs Stud* 111: 103637. DOI: 10.1016/j.ijnurstu.2020.103637.
11. Gustafsson T, Hemberg J (2022). Compassion fatigue as bruises in the soul: A qualitative study on nurses. *Nurs Ethics* 29(1): 157–170. DOI: 10.1177/09697330211003215.
12. Halberg N, Jensen PS, Larsen TS (2021). We are not heroes – The flipside of the hero narrative amidst the COVID-19 pandemic: A Danish hospital ethnography. *J Adv Nurs* 77(5): 2429–2436. DOI: 10.1111/jan.14811.
13. Hossain MM, Tasnim S, Sultana A, Faizah F, Mazumder H, Zou L, et al. (2020). Epidemiology of mental health problems in COVID-19: a review. *F1000Res* 9: 636. DOI: 10.12688/f1000research.24457.1.

14. Karagöl A, Törenli Kaya Z (2022). Healthcare workers' burn-out, hopelessness, fear of COVID-19 and perceived social support levels. *Eur J Psychiatry* 36(3): 200–206. DOI: 10.1016/j.ejpsy.2022.01.001.
15. Kisa S (2020). Burnout among Physicians and Nurses during COVID-19 Pandemic. *Eur J Environ Public Health* 4(2): em0055. DOI: 10.29333/ejeph/8447.
16. Labrague LJ, Hammad K, Gloe DS, McEnroe-Petitte DM, Fronda DC, Obeidat AA, et al. (2018). Disaster preparedness among nurses: a systematic review of the literature. *Int Nurs Rev* 65(1): 41–53. DOI: 10.1111/inr.12369.
17. Mohammed S, Peter E, Killackey T, Maciver J (2021). The “nurse as hero” discourse in the COVID-19 pandemic: A poststructural discourse analysis. *Int J Nurs Stud* 117: 103887. DOI: 10.1016/j.ijnurstu.2021.103887.
18. Morgantini LA, Naha U, Wang H, Francavilla S, Acar Ö, Flores JM, et al. (2020). Factors contributing to healthcare professional burnout during the COVID-19 pandemic: A rapid turnaround global survey. *PloS One* 15(9): e0238217. DOI: 10.1371/journal.pone.0238217.
19. Nemeth A, Papp K (2024). Depression and burnout among Hungarian health workers during the COVID-19 pandemic. *Kontakt* 26 (2): 120–125 DOI: 10.32725/kont.2024.021.
20. Shivairová O, Bártlová S, Hellerová V, Chloubová I (2023). Nurses Mental Health during the Covid-19 Pandemic. *Cent Eur J Nurs Midw* 14(1): 795–804. DOI: 10.15452/cejnm.2022.13.0009.
21. Snyder Sulmasy L, Burnett JR, Carney JK, DeCamp M; ACP Ethics, Professionalism and Human Rights Committee (2024). Ethics and Academic Discourse, Scientific Integrity, Uncertainty, and Disinformation in Medicine: An American College of Physicians Position Paper. *Ann Intern Med* 177(9): 1244–1250. DOI: 10.7326/M24-0648.
22. Šupíková M, Jankovičová J, Jarabicová O, Rypicz L, Witzcak I (2022). Factors affecting nurses' mental health during the COVID-19 pandemic. *Kontakt* 24(3): 205–201. DOI: 10.32725/kont.2022.022.