Original Article
Centenaro APFC, Andrade A, Franco GP, Spagnolo LML, Cardoso LS, Costa MC, Bonow CA, Silva RM
Working conditions in COVID-19 hospital units: perceptions of nursing workers
Rev Gaúcha Enferm. 2023;44:20220007
doi: https://doi.org/10.1590/1983-1447.2023.20220007.en

Working conditions in COVID-19 hospital units: perceptions of nursing workers

Condições de trabalho em unidades hospitalares COVID-19: percepções de trabalhadores de enfermagem

Condiciones laborales en unidades hospitalarias COVID-19: percepciones de los trabajadores de enfermería

Alexa Pupiara Flores Coelho Centenaro[a] https://orcid.org/0000-0002-9117-5847
Andressa de Andrade[a] https://orcid.org/0000-0002-5977-409X
Gianfábio Pimentel Franco[a] https://orcid.org/0000-0003-0644-8917
Lílian Moura de Lima Spagnolo[b] https://orcid.org/0000-0003-2070-6177
Leticia Silveira Cardoso[c] https://orcid.org/0000-0002-2946-6758
Marta Cocco da Costa[a] https://orcid.org/0000-0002-9204-3213
Clarice Alves Bonow[b] https://orcid.org/0000-0001-9918-9234
Rosângela Marion da Silva[d] https://orcid.org/0000-0003-3978-9654

[a]Universidade Federal de Santa Maria (UFSM). Departamento de Ciências de Saúde. Laboratório de Estudos em Saúde, Enfermagem e Trabalho. Palmeira das Missões, Rio Grande do Sul, Brasil.
[b]Universidade Federal de Pelotas (UFPel). Faculdade de Enfermagem. Núcleo de Condições Crônicas e suas Interfaces (NUCCRIN). Pelotas, Rio Grande do Sul, Brasil.
[c]Universidade Federal do Pampa (UNIPAMPA). Departamento de Enfermagem. Laboratório de Estudos de Processos Socioambientais e Produção Coletiva de Saúde. Uruguaiana, Rio Grande do Sul, Brasil.
[d]Universidade Federal de Santa Maria (UFSM). Departamento de Enfermagem. Grupo de Pesquisa Trabalho, Saúde, Educação e Enfermagem. Santa Maria, Rio Grande do Sul, Brasil.

How to cite this article:
Centenaro APFC, Andrade A, Franco GP, Spagnolo LML, Cardoso LS, Costa MC, Bonow CA, Silva RM. Working conditions in COVID-19 hospital units: perceptions of nursing workers. Rev Gaúcha Enferm. 2023;44:20220007. doi: https://doi.org/10.1590/1983-1447.2023.20220007.en

ABSTRACT

Objective: To know the perceptions of nursing workers about their working conditions in COVID-19 hospital units.

Method: Qualitative, descriptive, multicenter study, carried out in September 2020 and July 2021 with 35 nursing workers from COVID-19 units of seven hospitals in Rio Grande do Sul,

Brazil. Data were produced through semi-structured interviews and submitted to thematic content analysis with the support of NVivo software.
Results: The participants reported availability of material resources and personal protective equipment, but perceived a lack of human resources, multiprofessional support and extra absorption of tasks, resulting in the intensification of work and culminating in overload. Professional and institutional aspects were also mentioned, such as fragility in professional autonomy, wage lag, payment delays and little institutional appreciation.
Conclusion: Nursing workers in the COVID-19 units lived with precarious working conditions, worsened by organizational, professional and financial elements.
Keywords: Nursing. COVID-19. Working conditions. Nurse practitioners. Hospital units.

RESUMO
Objetivo: Conhecer as percepções de trabalhadores de enfermagem acerca de suas condições de trabalho em unidades hospitalares COVID-19.
Método: Estudo qualitativo, descritivo, multicêntrico, realizado setembro de 2020 e julho de 2021 com 35 trabalhadores de enfermagem de unidades COVID-19 de sete hospitais do Rio Grande do Sul, Brasil. Os dados foram produzidos por meio de entrevistas semiestruturadas e submetidos à análise temática de conteúdo com auxílio do *software* NVivo.
Resultados: Os participantes referiram disponibilidade de recursos materiais e equipamentos de proteção individual, mas percebiam carências de recursos humanos, de suporte multiprofissional e absorção extra de tarefas, resultando na intensificação do trabalho e culminando em sobrecarga. Aspectos profissionais e institucionais também foram referidos, como fragilidade na autonomia profissional, defasagem salarial, atrasos nos pagamentos e pouca valorização institucional.
Conclusão: Os trabalhadores de enfermagem das unidades COVID-19 conviveram com a precarização das condições de trabalho, agravadas por elementos organizacionais, profissionais e financeiros.
Palavras-chave: Enfermagem. COVID-19. Condições de trabalho. Profissionais de enfermagem. Unidades hospitalares.

RESUMEN
Objetivo: Conocer las percepciones de los trabajadores de enfermería sobre sus condiciones de trabajo en unidades hospitalarias COVID-19.
Método: Estudio cualitativo, descriptivo, multicéntrico, realizado en septiembre de 2020 y julio de 2021 con 35 trabajadores de enfermería de unidades COVID-19 en siete hospitales de Rio Grande do Sul, Brasil. Los datos fueron producidos a través de entrevistas semiestructuradas y sometidos al análisis de contenido temático con la ayuda del *software* NVivo.
Resultados: Los participantes mencionaron la disponibilidad de recursos materiales y equipos de protección personal, pero percibieron falta de recursos humanos, apoyo multidisciplinario y absorción extra de tareas, lo que resultó en la intensificación del trabajo y culminó en la sobrecarga. También se mencionaron aspectos profesionales e institucionales, como fragilidad en la autonomía profesional, brecha salarial, retrasos en los pagos y poca valorización institucional.
Conclusión: Los trabajadores de enfermería de las unidades COVID-19 vivían con la precariedad de las condiciones de trabajo, agravada por elementos organizativos, profesionales y económicos.
Palabras clave: Enfermería. COVID-19. Condiciones de trabajo. Enfermeras practicantes. Unidades hospitalarias.

INTRODUCTION

Historically, nursing has established a strong role in health services and public policies, including in situations of crisis and epidemics. This role is evidenced in the front line against the Coronavirus Disease 2019 (COVID-19) pandemic, as the category is an important workforce in the different points of the Health Care Network. However, this engagement on the front line increased the vulnerability of workers, leading them to fear, insecurity and illness[1].

COVID-19 has been impacting the organizational and work dynamics of hospitals in different countries worldwide, generating changes in nursing working conditions[2,3]. There was an increase in the workload and risks to the mental health of these workers[4].

Although COVID-19 has put on the agenda in society themes that have reinforced the importance of nursing for the health sector[1], the working conditions of these teams are unfavorable in Brazil and worldwide, especially on the lack of material and human resources, work overload, low wages, insufficiency and inadequacy of Personal Protective Equipment (PPE)[5]. The set of these elements has enhanced labor risks and led many workers to exhaustion, illness or death[1,5].

Until the beginning of June 2022, the Nursing Observatory, maintained by the Federal Nursing Council (*Conselho Federal de Enfermagem* - COFEN), counted 63,517 reported cases of nursing workers infected by the Severe Acute Respiratory Syndrome Coronavirus 2 (Sars-CoV-2). It also registered 872 deaths in Brazil, representing a mortality rate of 1.37%[6]. The International Council of Nurses recalls that around 180,000 health workers in the world have died from Sars-CoV-2. Of these, nursing professionals stand out who, in addition to the risk of infection, faced precarious working conditions and low salaries[7].

For these reasons, it is important to highlight the concept of working conditions, understood by the International Labour Organization as a set of circumstances that include working time, payment, physical and mental conditions and work demands[8]. Aspects such as the feeling of overload, inappropriate physical structure, availability of supplies and human resources, in addition to physical and psychological stressors are described as the most frequent weakening of working conditions and, consequently, of nursing workers' health[9].

Nursing teams have performed intense physical and emotional work, which may affect their health, which justifies the importance of the aspects regarding working conditions being described, discussed and analyzed, so that the profession is strengthened in society and the structuring of care actions aimed at these professionals[10,11]. The relevance of this theme is enhanced in the context of nursing work in COVID-19 hospital units, in which nursing teams

assume a daily life full of challenges and adversities in the care for people who develop the severe form of the disease, and where the working conditions of has results on the quality of care and also on workers' health[3].

At the same time that the world observes the role of nursing in coping with COVID-19, there are low guarantees of appropriate working conditions in some contexts[5]. Therefore, it can be considered that this is a theme of sensitive relevance nowadays. The speed with which the organization of the COVID-19 units occurred and the transformations in the daily lives of the teams requires the publication of evidence that sheds light on these aspects and increase their visibility. Therefore, this study aims to know the perceptions of nursing workers about their working conditions in COVID-19 hospital units.

METHOD

This is a qualitative, descriptive and multicenter study, whose method was designed based on the guidelines of the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist. The investigation was conducted in seven hospital institutions in different mesoregions of the state of Rio Grande do Sul, Brazil (Northwest, Central-West, Central-Eastern, Metropolitan, Southeast and Southwest). There were four large and three medium-sized institutions. Five were philanthropic; two were characterized as public hospitals linked to federal educational institutions. Units characterized by care for suspected and/or confirmed cases of COVID-19 were included, including Respiratory Screening Units, Urgency\Emergency sectors, Clinical Inpatient Units, and Intensive Care Units (ICU).

Nursing workers (nurses and technicians) working in care activities in these sectors were in the study. As exclusion criteria, workers on vacation or any type of functional leave were considered.

Hospital managers forwarded lists of professionals who met the eligibility criteria to the research team, with names, e-mails and/or telephone numbers. A total of 470 workers made up these lists. It was opted for a convenience sampling based on a simple random draw of five nursing workers per hospital institution – therefore, 35 in total. The material resulted from these interviewees allowed the theoretical saturation of the data, therefore, setting out the appropriate sampling of the study[12].

Workers were contacted by email or through messaging applications for invitation and schedule interviews. Twelve workers did not answer the researchers, even when contacted three times. Five professionals refused to participate in the study; the main reason reported

was the amount of research carried out during the pandemic. In these cases, new draws took place until reaching the appropriate sample.

Data production took place between September 2020 and July 2021 through semi-structured interviews. They were scheduled based on the availability of the participants, and access to them occurred from the institutional e-mail or by the respective nursing management. The interviews were individual and performed by the researchers only.

The interviews were conducted in person at five institutions. It was used wide and ventilated physical environments that could offer privacy and safety to those involved. The researchers used non-valved N95 or PFF2 masks, face shield, surgical caps, shoe covers, disposable surgical gowns and apron, as well as 70% alcohol hand sanitizer. Respecting the recommended social distancing, the parameter of 1.5 meters was used between the researcher and the interviewer.

After explaining the research, reading and signing the Free and Informed Consent Form (FICF), data related to gender, age, color/race, professional category, unit/sector were collected. With the consent of the interviewees, an in-depth interview was conducted, which were audio-recorded. In the semi-structured script, the main topics were aimed at the perceptions about the work on the front lines against COVID-19 and aspects related to working conditions.

Two hospital institutions requested that the interviews be conducted virtually. The FICF was presented by Google Forms to formalize the agreement. Google Meet was used for real-time chat, enabling audio and image sharing. To ensure the isonomic character, the virtual interviews followed the rite of the in-person format, and the recordings were made using the resources of the platform.

The interviews lasted approximately 22.5 minutes. The first interview was considered a pilot for adjustments in the semi-structured script. As no script changes were necessary, it was included in the database. They were conducted by the authors of the study, PhD nurses inserted in federal teaching institutions with expertise in research, in addition to two nurses enrolled in a nursing postgraduate program, all with careers in Occupational Health. All were trained for the field stage based on a standard research protocol for this study.

The participation of scholarship students from undergraduate research groups in nursing took place in the transcription of the full interviews, which were also previously qualified. Thematic content analysis was used for data processing from three stages: pre-analysis; exploration of the material; treatment of data and interpretation[13].

The pre-analysis started with fluctuating reading for immersion in the empirical content, enabling its apprehension and selection of relevant material for the objective of the study. In the exploration of the material, there was the decomposition and codification of the material in Registration Units (RU), which are terms that manifest the content of the statements according to themes related to the objective of the investigation[13].

This stage was performed with the support of the New NVivo Academic software, through its resources that produce the codification and textual decomposition, with the necessary quality and methodological transparency. The conceptual map is one of the features provided by the software and was undertaken in the textual analysis. At the end of this stage, the grouping of categories and subcategories of analysis was made possible by the approximation of RU according to their semantic affinity.

The treatment of the data obtained and their interpretation allowed the researchers to make inferences and comments that led them to fundamental conclusions[13]. The categories and subcategories of analysis were reexamined and theorized, admitting the interpretation and discussion around aspects related to working conditions.

In the results of this study, there are excerpts from the statements of the participants. To protect their identities, they are identified by the letter W, which precedes the word "worker", followed by a cardinal number that represents the order in which the interview was conducted. There is also identification of the unit/sector: Urgency/Emergency or COVID-19 Respiratory Screening Units (COVID-19 Emerg.); COVID-19 Inpatient Units (COVID-19 Imp.); COVID-19 Intensive Care Unit (COVID-19 ICU); and more than one COVID-19 unit (COVID-19 Units).

The project was approved by the local Research Ethics Committee under opinion No. 4,549,077, thus guaranteeing the ethical aspects of research conducted with human beings recommended by Resolutions No. 466/2012 and No. 510/2016 of the National Health Council.

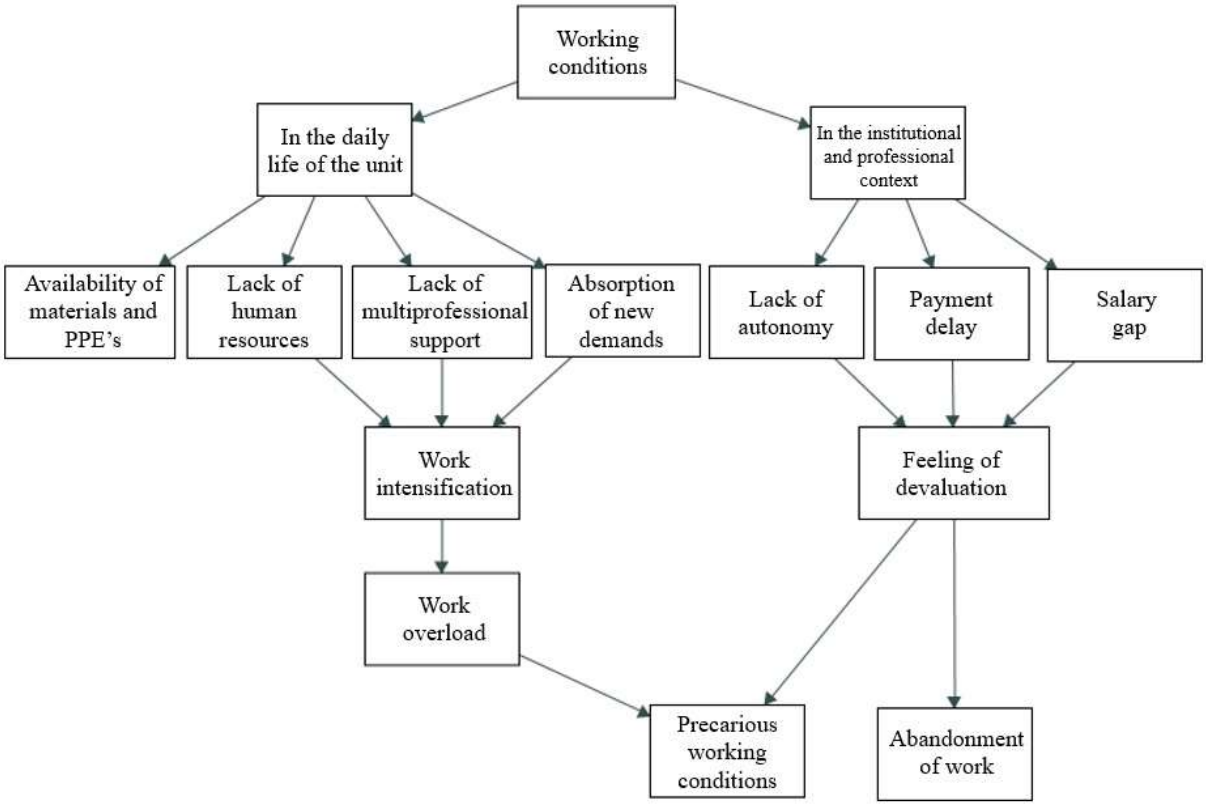
RESULTS

In total, 35 nursing workers from COVID-19 units participated in the survey. Among them, 28 (80%) were women. The mean age was 38 (±8.9) years. Regarding color/race, 27 (77%) were white and 8 (23%) were black or brown. Regarding the professional category, 25 (71.4%) were nursing technicians and 10 (28.6%) nurses.

Regarding the capacity units, 15 (42.8%) were in Urgency/Emergency units or COVID-19 Respiratory Screening Units; 11 (31.4%) in COVID-19 Inpatient Units; 8 (22.8%) in COVID-19 ICUs; and 1 (2.8%) in more than one COVID-19 unit.

Figure 1 shows the conceptual map built with the synthesis of the results of content analysis. Next, these results are deepened in two analytical categories: Nursing working conditions in the daily life of COVID-19 units; and Beyond the limits of the COVID-19 unit: institutional and professional aspects of working conditions.

Figure 1 - Conceptual map illustrating the synthesis of results of thematic content analysis. Palmeira das Missões, Rio Grande do Sul, Brazil, 2021



Source: designed by the authors using NVivo Academic software.

Nursing working conditions in the daily life of COVID-19 units

At first, nursing workers recognized that, throughout the pandemic, there were efforts by institutions to promote adequate availability of material resources for the COVID-19 units:

> *I think here* [COVID-19 unit] *we are very well assisted. Everything we need, everything we ask, has. The medication is "at hand". It has the tests.* [...] *We don't have much difficulty. We have a lot of movement, of course. But it is not our exclusivity and as we have here, the assistance we have from the municipality and the hospital are very good.* [...] (W12-COVID-19 Emerg.)

The same perceptions referred to the adequacy and availability of PPE. The interviewees reported that colleagues in the non-covid-19 units were, in practice, more exposed to the risks of infection compared to those on the front line:

> [...] *We saw many patients here at the* [COVID-19] *unit that at first were asymptomatic. A day before these patients were in the open unit. Many colleagues manipulated those patients simply with surgical mask and did not have proper training for COVID-19 patient. The other day that colleague was desperate because those patients had come to us for isolation. I could also be working there. We are not allowed to use N95 outside the unit [Covid-19]. There [non-covid-19 unit] is just the surgical mask, you can't wear apron, you don't wear glove, except in the procedures. You cannot check the patient signs using gloves* [...] (W25-COVID-19 Imp.)

However, despite the availability of PPE's and other supplies, nursing workers recognized that their working conditions were crossed by other elements. One of them concerns the lack of human resources, partly due to recruitment difficulties for these units, but also because of the high number of absences due to the contamination of the teams:

> [...] *one day I got four patients in the ICU. It was hard because my colleagues did not renew the contract and left* [...] (W20-COVID-19 Emerg.)

> [...] *during the pandemic I was one of the only ones in my team not infected with COVID-19. The rest of my colleagues were all infected.* [...] *If I wasn't on shift at night, the other day I was, because we were a team of four and sometimes an employee on leave, so it always left for us [...]* (W16-COVID-19 ICU)

In addition to the lack of workforce in the COVID-19 units, nursing workers also felt the need for greater multidisciplinary support in the daily care for COVID-19 patients:

> [...] *physician, therapist* [occupational], *nurse,* [nursing] *technician, to be able to do the correct technique. Prone correctly. Many patients who were not indicated to be proned* [but physicians] *prescribed.* [...] *I missed the whole team, physical therapy, the most intensive medicine. Not that they were not present, but not like nursing, which was 24 hours. In the shift we saw practically nursing, so I missed that. A more multidisciplinary team* [...] (W29-COVID-19 ICU)

In addition, nursing workers reported that they had to absorb a set of demands and attributions that, so far, were not part of their work routine:

> [...] *We* [nurses] *ended up assuming several other attributions. Secretary, collection of laboratory sample... people who collect gasometry. We had to solve bureaucratic experiences, answer phone, paperwork, anyway* [...] (W21- COVID-19 Emerg.)

> [...] *Other units did not enter the* [unit] *COVID-19, so any extra demand was with us. We had to do management things that I didn't do. I had these changes in my routine. Deciding things I was not used to.* [...] (W34-COVID-19 ICU)

These elements resulted in the intensification of work. Participants experienced an

intense work routine, with shifts in which the sequence of activities became almost uninterrupted at times. The interviewees referred loss in the moments intended for rest, as well as difficulties to eat, drink water or go to the bathroom:

> [...] *Sometimes I can't have a snack in the middle of the shift*. [...] *I have no water inside* [COVID-19 unit] [...] (W22-COVID-19 Emerg.)

> [...] *We would have a 15-minute break, but we don't do it. We hardly do it. To start we don't even have a room for that. We would have to come to the cafeteria to have a coffee or snack, but we don't have time* [...] *today I had to fight with my colleague for her to go to the bathroom, because she needed* [...] (W26-COVID-19 Imp.)

> [...] *There were days when I dressed up, I got in the isolation and no longer left.* [...] *One day I couldn't stand it and went to the patient's bathroom.* [...] *Many times I was six hours dressed in gear, assisting, without bathroom, without drinking water* [...] (W29-COVID-19 ICU)

The daily life of work intensification, result of high demand in the COVID-19 units, generated overload for participants:

> [...] *It is very tiring. We impair our psychological. We work in a unit of 16 beds and most of the time we are only in two* [nursing] *technicians to do this support against COVID-19* [...] *We don't stop, we can't even give the necessary support that our unit needs.* [...] *It is very tiring, we end up being tormented* [...] (W26-COVID-19 Imp.)

Therefore, the data in this analytical category point out that, despite the availability of material and PPE resources for care, there was precarious working conditions in these sectors, especially regarding human resources and the intensification of work.

Beyond the limits of the COVID-19 unit: institutional and professional aspects of working conditions

The participants identified other aspects related to working conditions that surpassed the limits of the COVID-19 unit, comprising institutional and professional issues. The fragility of the professional autonomy of the nurse and his strength in the decision-making process was mentioned:

> [...] *I think the question of being a little more respected. From our voice worth, our ideas are put into practice. To have autonomy. I think the nurse still has a pseudo autonomy. Very slight autonomy of nurses* [...] (W29-COVID-19 ICU)

There was also highlight to the financial situation of hospitals, with payment delays and wage lag, giving workers feelings of devaluation, dissatisfaction, and demotivation:

> [...] *financial issue is something that needs to change. For example, there is a colleague who went on vacation and so far has not yet been paid. Whether or not we bring this to us to the service. Affects. We no longer work the same way. Then we are charged, you can't miss work. But we are not recognized* [...] (W27-COVID-19 Imp.)

> [...] *too much lagged* [wage]. *Having to work in two, three places to be a little better paid. For example, without disregarding the other categories, but I get the same thing as a janitor colleague. What stimulus do I have?* [...] *I have to pay COREN every year, I have to be studying all the time, I have to know how to puncture, I have to know how to practice nursing.* [...] (W29-COVID-19 ICU)

Finally, nursing workers reported their perception regarding the lack of institutional investment in their working conditions, recalling colleagues who left work for these reasons:

> [...] *I think what you need for staff to work more motivated and encouraged is greater attention by the institution. Payments up to date. I took a vacation and so far I haven't been paid. Sometimes we are in a 12-hour shift, the food that comes to us is horrible and still discount when we eat.* [...] *Many* [colleagues] *left for these reasons.* [...] (W26-COVID-19 Imp.)

Therefore, this analytical category points out that nursing working conditions were crossed by aspects that go beyond the limits of the COVID-19 unit itself, including issues on payments, appreciation, and professional autonomy.

DISCUSSION

The first analytical category points out to everyday aspects in the COVID-19 units that were related to working conditions. The interviewees emphasized the availability of material resources and PPE. This result differs from other studies with this population, in Brazil and other countries, which reported a situation contrary to that found in this research[3,14-16]. One can consider that this is the result of the efforts made by the health institutions in the state of Rio Grande do Sul in the acquisition of PPE for these units throughout the pandemic.

The interviewees also suggest that, at times, they felt safer regarding the availability and adequacy of resources when compared to non-COVID-19 units. A Polish cross-sectional study with more than 500 nursing workers from different hospital sectors found statistically significant differences when comparisons were made between the working conditions of different units, suggesting that are few differences between them[11]. In addition, it can be considered that, there may have been prioritizing of COVID-19 units in the distribution of PPE, resulting in the shortage of some non-COVID-19 units.

An international literature review points out that the Sars-CoV-2 health crisis has bared health systems worldwide, unprepared to deal with emergencies of this nature. The imbalance between demand and supply of PPE was one of the consequences of this

unpreparedness. The lessons learned from this experience should serve for health management in the post-pandemic world[17].

However, professionals highlighted negative aspects of working conditions. Among them, the lack of human resources, attributed to discontinuities and recruitment difficulties, besides the high number of sick leaves due to contamination. This finding is in line with results of other studies conducted with nursing workers, which showed that they perceived an increase in working hours due to recruitment difficulties and the number of workers infected by Sars-CoV-2 (and, therefore, on leave)[3,18].

Research conducted in three hospitals in Belgium assessed and compared the nursing workload with COVID-19 and non-COVID-19 patients (totaling more than 1700 people). The study concluded that COVID-19 patients involved a greater workload and required significantly more time for care[19]. The complexity of this care should motivate an increase in the workforce in COVID-19 units, however, other studies have shown the opposite.

An Israeli cross-sectional study conducted with 130 nursing professionals showed that most perceived their increased workload due to staff shortages during the pandemic[20]. A Brazilian cross-sectional study conducted with 890 nursing workers showed that abstention from work due to suspected or confirmed COVID-19 was reported by 16.6% of the studied sample. In addition, the study found a statistically significant association between the negative evaluation of working conditions and suspected infection by Sars-CoV-2[21], which reinforces the relationship between these factors.

It is a fact that COVID-19 has increased institutions' demand for nursing services. In part, this demand resulted in an increase in the number of hires. However, although there is a relatively large number of nursing professionals per inhabitants in Brazil, institutions do not always respect the adequate dimensioning of teams regarding the requirements of the sectors. This causes a purposeful professional deficit, as the behavior of overloading the worker is sustainable for the service[5]. Therefore, this finding may be related to the professional precariousness of nursing, which results in worsening working conditions.

The lack of multidisciplinary support was also reported by the participants. The COVID-19 health crisis revealed the importance of support between different professional categories to face physical and psychological overload[3]. The complexity of severe cases of the disease highlighted the importance of multiprofessional work for the comprehensive care and obtaining good results in the recovery of these patients.

However, at the same time, there are records of a decrease in the staff size in some institutions, with redistribution of activities among employees[5], which weakens the

comprehensive care and working conditions. In these situations, professionals who provide continuous and uninterrupted care – such as nursing – feel fragile and unassisted at a time when they would need a cohesive interdisciplinary network.

The absorption of new attributions was also highlighted by the participants and related to the damage to their working conditions. A study conducted with 445 Brazilian nursing workers showed that 92.5% of them believed that the pandemic had transformed their work processes[18]. A qualitative study conducted with 17 hospital nursing workers in Spain identified that measures to restrict the movement of people in COVID-19 units determined that workers in these units absorbed new demands that, until then, were performed by other people. In the participants' perception, nurses were the workers most overloaded by extra activities, as they are considered more flexible and adaptive professionals[3].

However, it is also known that overloading workers with overlapping functions is part of the professional devaluation and precariousness of nursing work, as it is a reality that already existed before the pandemic[5]. Therefore, one can consider that the scenario imposed by the pandemic, in addition to creating new situations, gave other nuances to existing problems in the profession. The precariousness of nursing work is a historical phenomenon crossed by political, economic and social elements that make its dissolution difficult and that are strengthened in periods of crisis.

The coexistence of these elements intensified nursing work, which manifested in losses in moments of rest, food and, in some cases, use of the bathroom. It is known that the use of PPE with COVID-19 has become continuous. This also generates discomfort for nursing workers, such as difficulties in eating, using the bathroom and the onset of pressure injuries[5,18]. However, it is also important to point out the interference of accelerating the pace of work and accumulation of demands, which pressure workers to sometimes give up their self-care.

The result of this context is the characterization of work overload in nursing work in COVID-19 units, which is in line with the results of other similar research[3,14,15,18]. It is important to highlight that this scenario has consequences for the assisted population. In adverse conditions, nursing teams treat patients according to clinical priorities or according to the prognostic perspective. These decisions sometimes permeate the making of bioethically controversial decisions[5].

In addition, it causes damage to the mental health of workers[2,4] and other health-related damage. As an example, results of a study conducted with 158 nursing workers in

Poland showed that the infection of nursing professionals by Sars-CoV-2 was associated with higher levels of anxiety, depression and perception of work overload[2].

The second analytical category is the result of a broader view of working conditions by the participants, as they identified an interface between institutional and professional aspects. The difficulties experienced by workers in establishing their professional autonomy in decision-making, initially, recall the existing contradictions in the attribution of symbolic value between professions. Lack of professional recognition, autonomy, as well as work overload and inappropriate working conditions are described as experiences of dissatisfaction in nursing[9], weaken the meanings of work not favoring workers' mental health.

In addition, emphasis was given to payment delays in and wage lag, which explained the feeling of professional devaluation. It is known that appropriate working conditions and payment, as well as a sense of accomplishment and professional appreciation are described as experiences of satisfaction in nursing[9]. However, in the context of COVID-19, the need to hire nursing staff enhanced precarious work. As examples, we can state: temporary contracts, payment profile per day/shift, journeys with unpaid overtime and with a bank of hours, breaks interspersed for long periods[5].

The generation of value for nursing professionals in Brazil is not proportional to the growing demand for their work or their level of qualification. Even with COVID-19, nursing continues to be a potentially exploitable population. The pandemic has caused an increased need for a nursing workforce. However, this demand was met by an overpopulation of workers available for precarious, unstable contracts, characterized by overload and risks[5].

The devaluation of nursing is the result of a historical burden crossed by issues of gender, race and social class. The impacts of the pandemic on health expose the devaluation of the category, illustrated in the social invisibility and precariousness of the life of those who exercise it[16,22]. The pandemic encouraged important reflections in society on the working conditions, recognition and salary increment of nursing workers in Brazil and worldwide. There was an important media movement that triggered the social construction of nursing workers as heroes of the pandemic; however, this media movement did not follow important changes in the nursing career, with emphasis on payment and contraction issues.

One can agree that hiring relationships strongly influence the perception of working conditions. Precarious employment, determined by relationships or material deprivation, has a negative impact on the worker's life, perpetuates inequalities[16] and reinforces the devaluation of the profession.

Lastly, the data suggest that work abandonment may have been an alternative for a group of nursing workers as a response to the precariousness of working conditions, a result similar to that found in a Polish study with more than 500 nursing professionals. The authors suggest that the recognition and intervention on working conditions and overload on the profession can mitigate the work abandonment and even the profession[11].

Finally, it is important to discuss the implications of these results for the health of nursing workers. A scoping review showed that working conditions are among the main causes of psychological distress among nursing workers on the front lines of COVID-19[15]. A Danish qualitative study conducted with 57 nursing professionals from COVID-19 hospital units reinforced that these teams especially need continuous management attention[23]. However, substantial transformations in the health of nursing workers require economic policies aimed at substantially improving employment and working conditions in the category[16].

Nursing professionals who worked to cope with COVID-19 need institutional support, psycho-emotional support, protection, safety and in-service education. These investments need to be permanent, that is, to be continued in the post-pandemic period[15]. The end of the health crisis does not mark the resolution of the problems worsened by it. After this period, nursing workers will need support and institutional support to reorganize their work process and develop strategies that mitigate the damage inherited from this experience.

In addition, it is necessary to recognize and expand discussions on the social inequalities that weigh on nursing and that were enhanced in the pandemic[22]. It is agreed that the management of human and material resources is essential to sustain nursing working conditions[3]. However, the results of this study reinforce that, in addition to conditions that favor work in the daily life of health units, nursing needs sociopolitical transformations that restrain economic and labor exploitation of the category and strengthen autonomy and professional appreciation.

The results of this study point out the need for investments and transformations in working conditions in health institutions. Therefore, the study offers support for these actions. In addition, they reinforce the importance of political representations that fight for projects that strengthen employability and the financial and professional recognition of nursing in Brazil. The results can also support teaching in undergraduate nursing courses, so that the training of nurses includes the exercise of critical reflection around autonomy, professional and financial appreciation of the category.

This study had as a limitation the fact that data collection took place during different phases of the pandemic in the state of Rio Grande do Sul. It is believed that the participants' perception was conditioned to the moment in which they found themselves with regard to the waves of contamination in the different mesoregions, which assumed unique characteristics. Therefore, different groups of participants responded to the research at different times of the health crisis, which gives the data a possible temporality bias. To get around this, the authors sought to contextualize these data, in the discussion, with findings from other studies also conducted at different times of the pandemic.

It is also important to highlight that the interviews were conducted by different researchers. This was necessary due to the multicenter character of the project, with decentralized and geographically distant settings. Collection biases were reduced with the support of a solid research protocol, constructed and discussed in a participatory way, which contributed to the alignment of the collection. Even so, it should be considered the interface between conducting an interview and the subjectivity of the researcher, which may give the database a uniformity bias.

FINAL CONSIDERATIONS

The results of this study revealed that the working conditions of nursing in COVID-19 units were influenced by aspects related to the daily routine of the units, such as availability of supplies and PPE's, lack of human resources and multidisciplinary support, in addition to overlapping demands, being identified the intensification of work that caused overload. In addition, the results point out that institutional and professional aspects also have an interface with working conditions, highlighting the wage lag, fragile autonomy, and lack of investments, resulting in feelings of devaluation and, in some cases, work abandonment. At the end of the study, it is possible to consider that the nursing workers from COVID-19 units lived with precarious working conditions, aggravated by organizational, professional and financial elements.

REFERENCES

1. Ximenes Neto ERG, Machado MH, Freire NP, Silva MCN, Santos BMP, Wermelinger MCMW. Complaints of Brazilian nursing about exposure to occupational risks during the COVID-19 pandemic. Nursing. 2021;24(280):6195-8. doi: https://doi.org/10.36489/nursing.2021v24i280p6191-6198

2. Malinowska-Lipień I, Suder M, Wadas T, Gabryś T, Kózka M, Gniadek A, Brzostek T. The correlation between nurses' COVID-19 infections and their emotional state and work conditions during the SARS-CoV-2 pandemic. Int J Environ Res Public Health. 2021;18(23):12715. doi: https://doi.org/10.3390/ijerph182312715

3. Fernández-Castillo RJ, González-Caro MD, Fernández-García E, Porcel-Gálvez AM, Garnacho-Montero J. Intensive care nurses' experiences during the COVID-19 pandemic: a qualitative study. Nurs Crit Care. 2021;26(5):397-406. doi: https://doi.org/10.1111/nicc.12589

4. Li TM, Pien LC, Kao CC, Kubo T, Cheng WJ. Effects of work conditions and organisational strategies on nurses' mental health during the COVID-19 pandemic. J Nurs Manag. 2021;30(1):71-8. doi: https://doi.org/10.1111/jonm.13485

5. Backes MTS, Higashi GDC, Damiani PR, Mendes JS, Sampaio LS, Soares GL. Condições de trabalho dos profissionais de enfermagem no enfrentamento da pandemia da Covid-19. Rev Gaúcha Enferm. 2021;42(esp):e20200339. doi: https://doi.org/10.1590/1983-1447.2021.20200339

6. Conselho Federal de Enfermagem [Internet]. Observatório de Enfermagem. 2022 [citado 2022 jun 03]. Disponível em: http://observatoriodaenfermagem.cofen.gov.br/

7. International Council of Nurses. “The greatest threat to global health is the workforce shortage” - International Council of Nurses International Nurses Day demands action on investment in nursing, protection and safety of nurses [Internet]. Geneva: ICN; 2022 [cited 2022 Jun 04]. Available from: https://www.icn.ch/sites/default/files/inline-files/PR_14_IND2022_FINAL_no%20embargo.pdf

8. Organização Internacional do Trabalho. Condições de trabalho [Internet]. Lisboa: OIT; 2021 [cited 2021 Jul 12]. Available from: https://www.ilo.org/lisbon/temas/WCMS_650796/lang--pt/index.htm

9. Silva AGI, Mendonça SES, Moraes AC, Vasconcelos TS, Costa GF. Satisfaction and dissatisfaction of the nursing team in urgent and emergency units: integrative review. Nursing. 2021;24(276):5663-9. doi: https://doi.org/10.36489/nursing.2021v24i276p5656-5669

10. Huang H, Liu L, Yang S, Cui X, Zhang J, Wu H. Effects of job conditions, occupational stress, and emotional intelligence on chronic fatigue among Chinese nurses: a cross-sectional study. Psychol Res Behav Manag. 2019;12:351-60. doi: https://doi.org/10.2147/PRBM.S207283

11. Kowalczuk K, Krajewska-Kułak E, Sobolewski M. Factors determining work arduousness levels among nurses: using the example of surgical, medical treatment, and emergency wards. Biomed Res Int. 2019;2019:6303474. doi: https://doi.org/10.1155/2019/6303474

12. Minayo MCS. Amostragem e saturação em pesquisa qualitativa: consensos e controvérsias. Rev Pesq Qual. 2017 [cited 2022 Jun 03];5(7):01-12. Available from: https://editora.sepq.org.br/rpq/article/view/82/59

13. Bardin L. Análise de conteúdo. São Paulo: Edições 70, 2016.

14. Nasi C, Marcheti PM, Oliveira E, Rezio LA, Zerbetto SR, Queiroz AM, et al. Meanings of nursing professionals' experiences in the context of the pandemic of COVID-19. Rev Rene. 2021;22:e67933. doi: https://doi.org/10.15253/2175-6783.20212267933

15. Miranda FBG, Yamamura M, Pereira SS, Pereira CS, Protti-Zanatta ST, Costa MK, et al. Psychological distress among nursing professionals during the COVID-19 pandemic: scoping review. Esc Anna Nery 2021;25(spe):e20200363. doi: https://doi.org/10.1590/2177-9465-EAN-2020-0363

16. Llop-Gironés A, Vračar A, Llop-Gironés G, Benach J, Angeli-Silva L, Jaimez L,et al. Employment and working conditions of nurses: where and how health inequalities have increased during the COVID-19 pandemic? Hum Resour Health. 2021;19(1):112. doi: https://doi.org/10.1186/s12960-021-00651-7

17. Li DTS, Samaranayake LP, Leung YY, Neelakantan P. Facial protection in the era of COVID-19: a narrative review. Oral Dis. 2021;27(Suppl 3):665-73. doi: https://doi.org/10.1111/odi.13460

18. Fernandez M, Lotta G, Passos H, Cavalcanti P, Corrêa MG. Condições de trabalho e percepções de profissionais de enfermagem que atuam no enfrentamento à covid-19 no Brasil. Saúde Soc. 2021;30(4):e201011. doi: https://doi.org/10.1590/S0104-12902021201011

19. Bruyneel A, Gallani MC, Tack J, d'Hondt A, Canipel S, Franck S, et al. Impact of COVID-19 on nursing time in intensive care units in Belgium. Intensive Crit Care Nurs. 2021;62:102967. doi: https://doi.org/10.1016/j.iccn.2020.102967

20. Savitsky B, Radomislensky I, Hendel T. Nurses' occupational satisfaction during Covid-19 pandemic. Appl Nurs Res. 2021;59:151416. doi: https://doi.org/10.1016/j.apnr.2021.151416

21. Kantorski LP, Oliveira MM, Treichel CAS, Alves PF, Lemos DSC, Ramos CI. Suspected infection, absenteeism at work and testing for COVID-19 among nursing professionals. Texto Contexto Enferm. 2021;30:e20210135. doi: https://doi.org/10.1590/1980-265X-TCE-2021-0135

22. Gandra EC, Silva KL, Passos HR, Schreck RSC. Brazilian nursing and the COVID-19 pandemic: inequalities in evidence. Esc Anna Nery. 2021;25(spe):e20210058. doi: https://doi.org/10.1590/2177-9465-EAN-2021-0058

23. Marsaa K, Mendahl J, Heilman H, Johansson H, Husum M, Lippert D, et al. Pride and uncertainty: a qualitative study of danish nursing staff in temporary COVID-19 wards. J Hosp Palliat Nurs. 2021;23(2):140-4. doi: https://doi.org/10.1097/NJH.0000000000000722

Acknowledgment:
To Research Support Foundation of the State of Rio Grande do Sul (*Fundação de Amparo à Pesquisa do Estado do Rio Grande do Sul* - FAPERGS) for supporting this research.

Authorship contribution:
Project administration: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade.
Formal analysis: Alexa Pupiara Flores Coelho Centenaro.
Funding acquisition: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade.
Conceptualization: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade.
Data curation: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade.
Writing-original draft: Alexa Pupiara Flores Coelho Centenaro.
Writing-review & editing: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade, Gianfábio Pimentel Franco, Lílian Moura de Lima Spagnolo, Leticia Silveira Cardoso, Marta Cocco da Costa, Clarice Alves Bonow, Rosângela Marion da Silva.
Investigation: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade, Gianfábio Pimentel Franco, Lílian Moura de Lima Spagnolo, Leticia Silveira Cardoso, Marta Cocco da Costa, Clarice Alves Bonow, Rosângela Marion da Silva.
Methodology: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade, Gianfábio Pimentel Franco, Lílian Moura de Lima Spagnolo, Leticia Silveira Cardoso, Marta Cocco da Costa, Clarice Alves Bonow, Rosângela Marion da Silva.
Resources: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade.
Supervision: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade.
Validation: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade.
Visualization: Alexa Pupiara Flores Coelho Centenaro, Andressa de Andrade.

The authors declare that there is no conflict of interest.

Corresponding author:
Alexa Pupiara Flores Coelho Centenaro
E-mail: alexa.coelho@ufsm.br

Received: 01.13.2022
Approved: 09.06.2022

Associate editor:
Adriana Aparecida Paz

Editor-in-chief:
Maria da Graça Oliveira Crossetti