






Impacts of the COVID-19 pandemic on nurses' health

Impactos da pandemia de COVID-19 para a saúde de enfermeiros

Impactos de la pandemia de COVID-19 en la salud de enfermeros

Deborah Moura Novaes Acioli¹; Amuzza Aylla Pereira dos Santos¹; José Augustinho Mendes Santos¹;
Islla Pimentel de Souza¹; Rubenita Kelly de Lima Silva¹

¹Universidade Federal de Alagoas. Maceió, Brazil

ABSTRACT

Objective: to describe the impacts of the COVID-19 pandemic on nurses' health. **Method:** in this exploratory, descriptive, qualitative study, data were obtained from semi-structured interviews of ten nurses from the Family Health Strategy in Murici, Alagoas state, and submitted to Minayo's Content Analysis technique, using Callista Roy's Theory of Adaptation as the theoretical frame of reference. **Results:** fear of the unknown, the need to meet the situation both personally and professionally, fear of transmitting COVID to family members, and the experience of grief were identified in this study. **Conclusion:** nurses' occupational exposure to the Coronavirus leads them to professional and human vulnerability. In this context, it is essential that nurses' health demands be well received and effectively met, considering that the basis of the profession is care. Accordingly, for quality care, working conditions need to be consistent with the nurses' function.

Descriptors: Pandemics; COVID-19; Mental Health; Nursing; Nurses.

RESUMO

Objetivo: descrever os impactos da pandemia de COVID-19 para a saúde de enfermeiros. **Método:** trata-se de um estudo exploratório, descritivo, com abordagem qualitativa, realizado com dez enfermeiros das Estratégias de Saúde da Família de Murici- Alagoas. Os dados foram obtidos a partir de entrevista semiestruturada, submetidos à técnica de Análise de Conteúdo de Minayo. O referencial teórico utilizado foi a Teoria da adaptação de Callista Roy. **Resultados:** o medo do desconhecido, a necessidade de enfrentamento da situação tanto pessoal como profissionalmente, o medo de transmissão da COVID-19 para os familiares e a vivência do luto, foram identificados neste estudo. **Conclusão:** a exposição do profissional enfermeiro ao Coronavírus o leva a vulnerabilidade profissional e humana. Nesse contexto, é fundamental que haja acolhimento efetivo ao enfermeiro, tendo em vista que a base profissional é o cuidado. Então, para a qualidade na assistência as condições de trabalho precisam ser condizentes a sua função.

Descritores: Pandemias; COVID-19; Saúde mental; Enfermagem; Enfermeiras e Enfermeiros.

RESUMEN

Objetivo: describir los impactos de la pandemia de COVID-19 en la salud de enfermeros. **Método:** se trata de un estudio exploratorio, descriptivo, cuyo enfoque es cualitativo, realizado junto a diez enfermeros de las Estrategias de Salud Familiar de Murici-Alagoas. Los datos se basaron sobre una entrevista semiestructurada y fueron sometidos a la técnica de Análisis de Conteúdo de Minayo. El referencial teórico utilizado fue la Teoría de la adaptación de Callista Roy. **Resultados:** en este estudio se identificaron el miedo a lo desconocido, la necesidad de afrontar la situación tanto personal como profesionalmente, el temor a la transmisión del COVID-19 a los familiares y la experiencia del duelo. **Conclusión:** la exposición profesional de los enfermeros al Coronavirus los lleva a la vulnerabilidad profesional y humana. En este contexto, es fundamental que haya una acogida eficaz al enfermero, teniendo en cuenta que la base profesional es el cuidado. Por lo tanto, para que la asistencia sea de calidad, las condiciones de trabajo deben ser adecuadas a su función.

Descriptores: Pandemias; COVID-19; Salud Mental; Enfermería; Enfermeras y Enfermeros.

INTRODUCTION

The world has been facing the new coronavirus pandemic that had its first outbreak in China in December 2019, but was only declared as a pandemic by the World Health Organization (WHO) in March 2020. This pandemic is the result of the SARS-CoV-2 virus, which causes a flu-like disease similar to the other coronaviruses (SARS-CoV and MERS-CoV). It is pointed out that the new coronavirus has its origins in bats, and it has also been discovered that it is linked to angiotensin-converting enzymes (ACE 2)^{1,2}.

This virus causes the Coronavirus Disease (COVID-19), which triggers Severe Acute Respiratory Syndrome; its severity varies according to the infected individual and can be asymptomatic, lead to a mild infection, or progress to more severe cases and cause severe pneumonia and evolve to death. The main symptoms are fever, cephalgia, fatigue, dyspnea and diarrhea. In older adults or individuals with comorbidities, the disease can evolve to Severe Acute

Corresponding author: Amuzza Aylla Pereira dos Santos. E-mail: amuzza.santos@gmail.com
Editor in chief: Cristiane Helena Gallasch; Associate Editor: Octavio Muniz da Costa Vargens

Respiratory Syndrome and lead to sepsis or cardiovascular/renal problems. Transmission of the new coronavirus mostly occurs between symptomatic people, usually three days after onset of the symptoms; however, there are reports of transmission through asymptomatic cases^{1,2}.

The increase in the spread of the SARS-CoV-2 virus generated anguish in the world population, especially for health professionals who, in addition to being more exposed to contamination, were also responsible for fighting against and containing a hitherto unknown virus. Several factors such as work overload, lack of scientific foundations to combat the infection, shortage of Personal Protective Equipment (PPE) and the uncertainties of vaccination, among others, were decisive for the increase in the development of psychosomatic illness in countless professionals^{3,4}.

While the vaccines were being developed in a safe and effective way, some non-pharmacological measures were determined worldwide to try to reduce circulation of the virus and, consequently, its transmission. Among them are use of masks, social distancing, hand hygiene, extensive testing and lockdown, all of which are encouraged by the WHO and diverse scientific committees⁵.

Brazil started vaccination in 2021; however, with a political crisis and slow adherence by the population, less than 25% had received two doses or even a single dose in the first half of the campaign. During this period, the non-pharmacological measures, testing and monitoring of the contacts were valid to control spread of the virus. The current Brazilian scenario is one of progress, despite the obstacles faced, the vaccine doses have been successfully offered to the population and, recently, they were released for children (from five to 11 years old), in order to reduce the risks for these age groups⁵.

Faced with a moment of intense challenge from the health point of view, with the emergence of new variants and the relaxation of the protective measures, nurses experienced the emotional impact that began with spread of the virus and persists until the present day. Several demands characterize the nurses' professional practice, having to deal with pain, losses, suffering and death. This psychological distress has repercussions in the professionals' life, both in the psychosocial sphere and in general well-being⁶. Thus, the distress experienced by professional nurses is related to the different spheres in the work, social and family contexts associated with the pandemic, requiring strategies that can promote mental health and offer treatment and psychosocial rehabilitation to health professionals.

In this context, the Nursing Theory chosen for the analysis of this study was the Callista Roy's Adaptation Theory, due to the adaptation moment that everyone is facing with the pandemic. Roy's model inter-relates concepts so that it presents a new view of the phenomenon under study. It identifies the key concepts relevant to Nursing: the person, the environment, health and Nursing in order to correlate the process experienced with the environment and Nursing. Individuals are seen in constant interaction with internal and external stimuli and with the way in which they must adapt to the new contexts⁷.

An important advantage of the model is that it guides nurses in the use of observations and in the interview skills while conducting individualized research. The behavior performed with the four adaptive elements is collected during the behavioral investigation, so that all adaptive-physiological modes can be considered, self-concept, role function and interdependence so that the person has some response that is manifested through their way of acting, and these responses may or may not be adaptive⁸.

Consequently, the guiding question of the current study is as follows: Which are the impacts of the COVID-19 pandemic on nurses' health? Considering the need to reflect on the theme, the objective of this study was to describe the impacts of the COVID-19 pandemic on nurses' health.

METHOD

This is an exploratory and descriptive study with a qualitative approach. The setting for conducting the research was all the health units from a municipality in the state of Alagoas, Brazil, where the ten Family Health Strategy teams are located. Choice of the setting was through previous contact with the municipality's Primary Care services, during the mandatory internship in undergraduate studies.

The research participants were ten nurses, who were contacted by telephone/online, where they were explained the research details and, after consenting to participate, the interviews were scheduled at the workplace. The consent form to participate was signed at the beginning of the interviews. The inclusion criterion was nurses who were working in the service during the pandemic period. The exclusion criteria were nurses who were part of the risk group who were distanced from their work activities and who were on vacation during the data collection period.

Data collection was carried out from July to October 2021 through individual interviews, using as a collection instrument a script with semi-structured questions consisting of two parts: the first with questions related to the participants' characterization, and the second with questions related to the study object. The statements were audio-recorded and, after full-transcription, they were stored for later analysis.

To ensure the participants' anonymity, the statements were identified through the letters NUR (related to the term Nurse) as a coding procedure, followed by numbers chosen according to the order of the interviews (1, 2, 3, 4).

The diverse information obtained was interpreted using the Content Analysis technique from Minayo's perspective, which seeks to understand the subject's thinking through the content addressed in the interview, following these stages: pre-analysis, exploration of the material, data processing, inference and interpretation⁹.

It is worth mentioning that this study was carried out in compliance with ethical principles, according to Resolutions 466/2012 and 510/16 of the National Health Council, and was approved by the Research Ethics Committee of the institution involved.

RESULTS

The study participants were ten nurses from the Family Health Units. The participants belonged to the age group between 31 and 60 years old and, of the ten nurses, eight were female. Eight obtained their degrees in public institutions, five are specialized in Public Health, and two have no specializations in related areas. Regarding time since graduation, one nurse has graduated less than five years ago, four between ten and 20 years ago, and five more than 20 years ago.

The categories related to the material collected emerged from the reports obtained in the interviews, delimiting thematic nuclei, namely: Arrival of the SARS-CoV-2 virus; Human beings x professionals facing the pandemic; and Impacts on the family contexts.

Arrival of the SARS-CoV-2 virus

According to the data collected, it was noticed that fear of the unknown, of something unprecedented, was present during the pandemic period. Something seen only during undergraduate studies, in the literature, needed to be experienced both personally and professionally, as seen in the following statements:

...I had nurses who needed to take a leave, undergo psychological/psychiatric monitoring [...] (NUR1)

It was difficult, even because I had never experienced a pandemic before, right? [...] I had only heard about pandemics. But the pandemic itself, you see people dying... it was horrible, the experience was not good. (NUR3)

I never thought, right? [...] we have a well-differentiated point of view, I also attended the Public Health course, then we study all this that happened. But living it, I never thought about it, right?... you then know that nobody is prepared. (NUR10)

Human beings x professionals facing the pandemic

From the statements, it can be inferred that nurses understand that there are two versions of themselves: one as human beings, who express feelings and desires, who are influenced by the environment; and another as health professionals, in view of the awareness of their role and importance in care, mainly because they are involved with the population throughout their working period, as stated by the nurses:

[...] you end up getting attached to the patient [...] I was afraid. [...] But you have to react, you need to keep the faith, move on and look for motivation, even to pass it on to the patient. (NUR3)

It's been somehow tense, mainly at the beginning of the pandemic. That's right, after the unit reopened, we came back full of fear, but, as the service was reduced, we nailed it. I didn't find it so difficult. (NUR5)

[...] we were a little scared, right? But then we had to adapt, right? Become aware of our importance, because we were the head of the situation, there was no way we could go back and not see the patients. (NUR6)

As a professional, it was very good to offer my help, right? We being able to share with others is very rewarding, it means a lot. Now, as a person, it was very painful. (NUR7)

Take most care of myself [...] try to overcome panic [...]. As a professional, you know you need to care for the others. But knowing that we're human and that there are people who depend on us has nothing to do with that. (NUR9)

Impacts on the family contexts

The fear of transmitting COVID-19 to family members was identified in the nurses' statements, based on the fact that these professionals are more exposed to the virus throughout their work shift and that they could become infected, take this virus to their family members and pass it on to them. Thus becoming a transmitter and making their family member another victim of a disease that behaves in different ways according to each organism. This fear can be noticed in the participants' statements:

If I could [...] I'd run. I was scared to death [...]. But I was afraid of catching it, because I have a COPD case at home. And I was not so afraid for myself [...]. I took all the care measures at home, but even so. (NUR2)

It was really hard... not to mention that I was also pregnant, it was even harder. (NUR8)

Difficult [...]. My fear of so much exposure, of catching it, of passing it on to my mother, to my children... And I had this precaution with them, so much so that I spent a long time without seeing my mother, right? That was very difficult. (NUR9)

It was also noticed that the mourning experience was also present during this pandemic period. The professionals needed to continue doing their job and, at the same time, had to live with the feeling of fear and sadness to the loss of a loved one, according to the following statement:

For me, personally, it was very sad, because I lost my mother and a brother. My people. But, as a professional, it was very good to offer my help, right? (NUR7)

DISCUSSION

Nursing is a profession with characteristics that demand full permanence in patient care, leading nurses to be part of the "front line" in the fight against COVID-19. These professionals are responsible for leading and performing technically complex care, which requires greater scientific knowledge and timely decision-making⁸.

Provision of care is the basis for the Nursing practice and it is what differentiates it from other professions in the health area. For professional nurses, taking care of a person as a complex human being is a challenge, and both technique and sensitivity are required for that; emphasizing that the needs of the people cared for are relentless and will not always be met in the same way. Consequently, the care and disease process brings to light all the weaknesses, such as fear, which exert a direct influence on the professionals' emotions¹⁰.

Understanding that the Family Health Strategy is considered the gateway to the Unified Health System (*Sistema Único de Saúde*, SUS), during epidemic and pandemic moments, it has a fundamental role in combating the disease. In view of this, it is necessary for nurses to review the flow of care and, concomitantly, to experience fear of the unknown, in the case of COVID-19, welcoming the uncertainties present in these situations¹¹.

Nurses perform their duties focused on disease prevention and health promotion, contributing to meeting the demands in the fight against COVID-19. It is worth mentioning the knowledge of these professionals who work with the multiprofessional team, within the health units, promoting interaction between the issues related to transmission, diagnosis, follow-up and treatment of users¹².

While most of the population practices social distancing, health workers, especially nurses, cannot back down. They risk themselves in the fight against SARS-CoV-2, facing adverse situations that interfere in the quality of life of these workers, which exerts several impacts on the personal and social life of the category^{13,14}.

In this context, it is possible to perceive that being at the forefront of the fight against a pandemic is something quite challenging, as the disease completely changes the individual's routine and makes room for the feeling of vulnerability to be part of their daily lives. This feeling is manifested, for example, through the fear of contamination/transmission and of losing loved ones. This emotional instability arises as a result of these concerns triggered by the pandemic, which caused insecurity not only at an individual level, but also collectively⁽¹¹⁾. The fear of contracting the disease exerts a considerable impact on people's mental health, becoming a worrying factor when facing a crisis and, in this context, support to this work class becomes necessary, as it is known that care quality needs a balance between health and emotional impacts^{15,16}.

Thus, from what was presented in this study, a critical and scientific perspective at the Nursing care process is necessary, and Callista Roy's Adaptation Theory shows that Nursing plays a fundamental role during the adaptive period in this context, as it takes into account the relationships of the person with health, with the environment and with the work process, interrelating them, in order to favor the adaptation of professional nurses, as they will be in direct contact with the population/community that experiences the disease and will need adaptation strategies to offer quality care, aiming at prevention, promotion and well-being for the population¹⁷.

CONCLUSION

The new coronavirus pandemic exposed health workers, including nurses, to professional and, above all, human vulnerability in the face of the impacts of the pandemic. The need to be at the forefront in the fight against the virus puts nurses in a crucial position to combat the disease, against the fear and uncertainty of contracting it or contaminating family members and friends, in addition to having to deal with the loss of patients and relatives. Therefore, the impact of the pandemic on the life of nurses is undeniable, who had to adapt to reality both in the physical and psychological spheres, considering all the wear out, long working hours, fears and uncertainties that they had to face.

The scenario described corroborates the need for a more effective welcoming to these workers by the competent bodies, given that the professional basis is care. Therefore, in order for it to be able to offer quality care, it is necessary that Nursing is recognized for its importance and that the working conditions are consistent with its role.

REFERENCES

1. Xavier AR, Silva JS, Almeida JP, Conceição JF, Lacerda GS, Kanaan S. COVID-19: clinical and laboratory manifestations in novel coronavirus infection. *J Bras Patol Med Lab*. [Internet]. 2020 [cited 2022 Mar 21]; 56:1-9. DOI: <https://doi.org/10.5935/1676-2444.20200049>.
2. Malik YA. Properties of coronavirus and SARS-COV-2. *Malaysian J Pathology*. [Internet]. 2020 [cited 2022 Mar 21]; 42(1):3-11. Available from: <http://www.mjpath.org.my/2020/v42n1/properties-of-coronavirus.pdf>.
3. Dantas ES. The mental health of Brazilian health professionals within the context of the Covid-19 pandemic. *Interface (Botucatu)*. [Internet]. 2021 [cited 2022 Mar 21]; 25(suppl 1):e200203. DOI: <https://doi.org/10.1590/Interface.200203>.
4. Moreira MB, Medeiros CA. *Princípios básicos de análise do comportamento*. Porto Alegre, RS: Artmed, 2007.
5. Maciel E, Fernandez M, Calife K, Garrett D, Domingues C, Kerr L, et al. The SARS-CoV-2 vaccination campaign in Brazil and the invisibility of science evidences. *Cien Saude Colet*. [Internet]. 2022 [cited 2022 Mar 21]; 27(3):951-6. DOI: <https://doi.org/10.1590/1413-81232022273.21822021>.
6. Miranda FB, 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. *Escola Anna Nery*. [Internet]. 2021 [cited 2022 Mar 21]; 25(spe):e20200363. DOI: <https://doi.org/10.1590/2177-9465-EAN-2020-0363>.
7. George JB (orgs.). *Teorias de enfermagem: os fundamentos para a prática*. 4ª ed. Porto Alegre: Artmed; 2000.
8. Minayo MC. *O desafio do conhecimento: pesquisa qualitativa em saúde*. 10a ed. São Paulo: Hucitec; 2007.
9. Coelho SM, Mendes IM. From research to nursing practice applying the Roy adaptation model. *Esc. Anna Nery* [Internet]. 2011 [cited 2022 Mar 21]; 15(4):845-50. DOI: <https://doi.org/10.1590/S1414-81452011000400026>.
10. Barbosa DJ, Gomes MP, Souza FB, Gomes AM. Fatores de estresse nos profissionais de enfermagem no combate à pandemia da COVID-19: síntese de evidências. *Comunicação em Ciências da Saúde*. [Internet]. 2020 [cited 2022 Mar 21]; 31(Suppl1):31-47. Available from: <http://www.esccs.edu.br/revistaccs/index.php/comunicacaoemcienciasdasaude/article/view/651>.
11. Humerez DC, Ohl RI, Silva MC. Mental health of Brazilian nursing professionals in the context of the covid-19 pandemic: action of the nursing federal council. *Cogitare Enferm* [Internet]. 2020 [cited 2022 Mar 21]; 25:e74115. DOI: <http://dx.doi.org/10.5380/ce.v25i0.74115>.
12. Teodosio SS, Gadelha MJ, Alcântara MS, Correia ML, Freitas ML, Dantas RB. O enfrentamento da COVID-19 na atenção primária em saúde: uma experiência em Natal-RN. In: Teodósio SSS, Leandro SS (Orgs.). *Enfermagem na atenção básica no contexto da COVID-19*. 2. ed. rev. Brasília, DF: ABEn; 2020 [cited 2022 Mar 21]. p. 49-54. <https://doi.org/10.51234/aben.20.e03.c07>.
13. Brito FS, Souza AP. The emotional impact of the new coronavirus pandemic on nursing professionals: An integrative review. *RSD*. [Internet]. 2021 [cited 2022 Mar 21]; 10(7):e42210716934. DOI: <http://dx.doi.org/10.33448/rsd-v10i7.16934>.
14. Lopes GV, Costa KF. Impactos e desdobramentos da pandemia da COVID-19 na Atenção Básica: um relato de experiência. *Revista Saúde em Redes*. [Internet]. 2020 [cited 2022 Mar 21]; 6(Supl. 2):7-16. Available from: <http://revista.redeunida.org.br/ojs/index.php/rede-unida/article/view/3298>.
15. Pereira MD, Torres EC, Pereira MD, Antunes PF, Costa CF. Emotional distress of Nurses in the hospital setting in the face of the COVID-19 pandemic. *RSD*. [Internet]. 2020 [cited 2022 Mar 21]; 9(8):e67985121. DOI: <https://doi.org/10.33448/rsd-v9i8.5121>.
16. Macedo JM, Souza RC, Jesus AL. COVID-19 and the fear that affects the mental health of nursing professionals: a literary review. *Revista JRG*. [Internet]. 2021 [cited 2022 Mar 21]; IV(9):58-65. DOI: <https://doi.org/10.5281/zenodo.5093816>.
17. Oliveira OC, Soares Júnior PR. O impacto da pandemia de COVID 19 na saúde mental das equipes de enfermagem no Brasil e as estratégias de enfrentamento frente a este desafio. *Repositório Universitário da Ânima (RUNA)*. 2021 [cited 2022 Mar 21]. Disponível em: <https://repositorio.animaeducacao.com.br/bitstream/ANIMA/14866/1/tccRUNA.pdf>.