

Nursing facing the Covid-19 pandemic and the quality of life at work

A enfermagem diante do enfrentamento da pandemia da Covid-19 e a qualidade de vida no trabalho

Enfermería frente a la pandemia Covid-19 y la calidad de vida en el trabajo

Maria Fernanda de Miranda Lima¹, Pêrpeta Socorro Fernandes Silva², Gilney Guerra de Medeiros³

How to cite: Lima MFM, Silva PSF, Medeiros GG. Nursing facing the Covid-19 pandemic and the quality of life at work. REVISA. 2022; 11(1): 16-25. Doi: <https://doi.org/10.36239/revisa.v11.n1.p16a25>

REVISA

1. Faculdade de Ciências e Educação
Sena Aires. Valparaíso de Goiás,
Goiás, Brazil.
<https://orcid.org/0000-0003-4891-5245>

2. Faculdade de Ciências e Educação
Sena Aires. Valparaíso de Goiás,
Goiás, Brazil.
<https://orcid.org/0000-0002-8891-2316>

3. Faculdade de Ciências e Educação
Sena Aires. Valparaíso de Goiás,
Goiás, Brazil.
<https://orcid.org/0000-0002-3351-2841>

Received: 22/10/2021
Accepted: 19/12/2021

RESUMO

Objetivo: analisar os principais desafios que os profissionais de Enfermagem têm no enfrentamento da Covid-19. Buscou-se também analisar o papel da enfermagem diante do enfrentamento da pandemia quanto às carências de infraestruturas nos serviços de saúde e descrever a importância da qualidade de vida no trabalho em tempos de pandemia. **Método:** Trata-se de revisão integrativa com abordagem de pesquisa qualitativa. A busca de artigos foi realizada na Biblioteca Virtual de Saúde (BVS) nas bases de dados Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS), Scientific Electronic Library Online (SCIELO) e Publish or Perish, com publicação entre os anos de 2012 até 2021 em português. **Resultados:** Um dos grandes desafios para os enfermeiros diante da pandemia da Covid-19, refere-se às condições de trabalho. Dada a infraestrutura inadequada, principalmente de leitos hospitalares, unidades de terapia intensiva lotadas e riscos iminentes de contaminação da Covid-19. **Conclusão:** O enfrentamento da pandemia por parte da enfermagem, requer medidas conjuntas e urgentes para amenizar o medo e a insegurança gerados pelo COVID-19. Percebeu-se que é necessário que exista medidas estratégicas e pontuais minimizando a sobrecarga, o estresse e os danos psicológicos que acometem os enfermeiros no ambiente de trabalho. **Descritores:** Enfermagem; Covid-19; Pandemia; Qualidade de vida no trabalho.

ABSTRACT

Objective: to analyze the main challenges that nursing professionals face in coping with Covid-19. We also sought to analyze the role of nursing in dealing with the pandemic in terms of the lack of infrastructure in health services and describe the importance of quality of life at work in times of pandemic. **Method:** This is an integrative review with a qualitative research approach. The search for articles was performed in the Virtual Health Library (VHL) in the Latin American and Caribbean Literature in Health Sciences (LILACS), Scientific Electronic Library Online (SCIELO) and Publish or Perish databases, published between the years from 2012 to 2021 in Portuguese. **Results:** One of the greatest challenges for nurses in the face of the Covid-19 pandemic refers to working conditions. Given the inadequate infrastructure, especially hospital beds, crowded intensive care units and imminent risks of contamination of Covid-19. **Conclusion:** Coping with the pandemic by nursing requires joint and urgent measures to alleviate the fear and insecurity generated by COVID-19. It was noticed that there is a need for strategic and specific measures to minimize the burden, stress and psychological damage that affect nurses in the work environment. **Descriptors:** Nursing; Covid-19; Pandemic; Quality of life at work.

RESUMEN

Objetivo: analizar los principales desafíos que enfrentan los profesionales de enfermería para enfrentar el Covid-19. También buscamos analizar el papel de la enfermería en el abordaje de la pandemia en términos de falta de infraestructura en los servicios de salud y describir la importancia de la calidad de vida en el trabajo en tiempos de pandemia. **Método:** Se trata de una revisión integradora con un enfoque de investigación cualitativa. La búsqueda de artículos se realizó en la Biblioteca Virtual en Salud (BVS) en las bases de datos de Literatura Latinoamericana y del Caribe en Ciencias de la Salud (LILACS), Biblioteca Electrónica Científica en Línea (SCIELO) y Publish or Perish, publicados entre los años 2012 a 2021 en portugués. **Resultados:** Uno de los mayores desafíos para las enfermeras frente a la pandemia Covid-19 se refiere a las condiciones laborales. Dada la infraestructura inadecuada, especialmente camas de hospital, unidades de cuidados intensivos abarrotadas y riesgos iminentes de contaminación de Covid-19. **Conclusión:** Hacer frente a la pandemia desde la enfermería requiere de medidas conjuntas y urgentes para paliar el miedo y la inseguridad que genera el COVID-19. Se advirtió que existe la necesidad de tomar medidas estratégicas y específicas para minimizar la carga, el estrés y el daño psicológico que afectan al enfermero en el ambiente laboral. **Descriptor:** Enfermería; Covid-19; Pandemia; Calidad de vida en el trabajo

Introduction

At the beginning of 2020, with the disease widely widespread on several continents, the World Health Organization (WHO) determined a pandemic situation. In Brazil, the health condition of the population worsens with the growth in the epidemic curve. As of November 30, 2020, the country had 173,165 cases of deaths. SARS-CoV-2 has shown a high transmissibility pattern in some geographic areas of Brazil. This rapid growth has expanded suspected cases, without the necessary confirmation notification, implying a probable undersized Brazilian epidemic curve, which weakens pandemic containment strategies.¹

Since the World Health Organization (WHO) classified the new coronavirus (SARS-CoV-2) as the cause of the Covid-19 pandemic, and Brazil began to live with and record an increase in the number of cases of this disease, thus, the concern with an unusual and complex scenario of action for health workers, especially for nursing professionals, intensified.²

Even before a crisis was established in health services due to the pandemic, nursing already suffered from the effects of the precariousization imposed by the neoliberal ideology in its labor process. In June 2020 in Brazil, despite the lack of official data from the Ministry of Health regarding the illness of nursing professionals, the Federal Nursing Council, through the Nursing Observatory, confirmed 143 deaths of professionals in the category and 17,044 cases of infected.²

The Covid-19 pandemic has produced significant numbers of infected and deaths worldwide. The speed with which Covid-19 has spread among countries, and especially in Brazil, has influenced the daily lives of millions of people on the planet, influenced the way health professionals face the disease.³

The pandemic spreads, imposing a worrying mortality rate and the need for patients with the disease to be treated differently in order to preserve lives and reduce the high risk of contagion, with harmful consequences for society. Suddenly the routine of health services is transformed, with overcrowded intensive care units, patients in serious condition, equipment in insufficient quantities, lives that are lost; and in the case of health professionals, comprehensive journeys, often exceeding human limits, such as tiredness, physiological, emotional and, above all, their occupational safety needs.⁴

Quality of life at work is a multidimensional concept that applies when the employee, through employment and his own perception, can cover the following personal needs: institutional support, security and integration to his role at work and satisfaction with his role, identifying the well-being obtained through his work and the personal development achieved, as well as the administration of your free time. Thus, it is worth reflecting that nursing is in difficulties during the coronavirus pandemic.⁵

The present study is justified, because nursing needs to work safely in the face of the new pandemic in Brazil, and also through specific interventions to support to minimize the effects of Covid-19 on infected individuals. Since nurses are at the forefront and putting their knowledge and their lives at the service of the general population, it is urgent to produce knowledge about the quality of life in hospital work with emphasis on nursing activities. Therefore, the fundamental question is: what are the main challenges nursing professionals face in coping with Covid-19 in Brazil in relation to the quality of life of work?

The hypothesis of this research can be understood as follows. The coronavirus pandemic could have much more devastating results if nursing shied away from its responsibilities and delivers to the care of patients with covid-19.

Thus, the article from now on aims to analyze the main challenges that nursing professionals have in coping with Covid-19. As for the specific objectives, the following stand out: to analyze the role of nursing in the face of the problem of the pandemic and the lack of infrastructure in health services and to describe the importance of quality of life at work in times of pandemic.

Method

The bibliographic survey was conducted in databases such as The Scientific Electronic Library Online (SciELO), Virtual Health Library (VHL), Latin American and Caribbean Literature databases in Health Sciences (LILACS), Brazilian Digital Library of Theses and Dissertations (BDTD) and on the portal of the nursing journal (REBEn).

The Descriptors in Health Sciences (DeCS) was created in 1986 by Bireme from MeSH (Medical Subject Headings). The use of a structured vocabulary allows the researcher to retrieve the information with the exact term used to describe the content of that scientific document, which is why the descriptors are of paramount importance.⁶

Therefore, the main descriptors used in the data collection were: covid-19, pandemic, quality of life at work and nursing.

All publications included were submitted to new readings and that after analysis were used to formulate the theoretical framework in a scientific way. Research in the area of science involves questioning and analysis of knowledge issues expressed in literary works at all levels. The solution of scientific questions aims to minimize doubts and bring reflection on new knowledge, based on clearly defined methodological procedures.⁷

The inclusion criteria involved complete articles in Portuguese from 2015 to 2020. It is noteworthy that in view of the selected articles, we chose to exclude those who did not contemplate the specific theme, those who did not have the descriptors that contemplated the general theme, or also used the integrative review methodology.

Results and Discussion

Forty-four articles were found, and exploratory reading of them was performed, of which 28 were excluded because they characterized escape to the theme. Thus, 16 complete articles were used that met the objectives of the literature review.

The pandemic and the nursing profession

Involved in the challenge of addressing the pandemic of Covid disease 19 caused by the new Coronavirus SARS-CoV2, we, teachers and nurses, have the opportunity and opportunity to promote important considerations about processes and working conditions in nursing. The work environment of these

professionals is characterized by experiences of pain, suffering and death associated with intensive work rates, long working hours, working hours, low wages, complex human relationships and scarcity of materials and personnel. These are stressful factors that can lead to diseases. Despite what is known today about the process of occupational disease, it still does not seem sufficient to sensitize governments and health managers to plan effective measures that ensure decent working conditions and quality of life at work (QVT) by nurses.⁸

Healthcare professionals pose a risk group for Covid-19 because they are directly exposed to infected patients, which gives them a high viral load (millions of viral particles). In addition, they are extremely stressed in the care of these patients, many of whom are in serious condition, in often inadequate working conditions. It should also be highlighted that health workers are not homogeneous, because they differentiate in terms of gender, race and social class, structure access to different levels and career plans and provide and reproduce opportunities for insertion in the labor market, always with the daily working conditions in the health sector.³

All health professionals are directly and indirectly involved in combating the pandemic and are consequently exposed to the risks of developing coronavirus on a day-to-day date. It is perceived that the heterogeneity that characterizes this contingent of workers determines different forms of exposure, both to the risk of contamination and related to factors and working conditions. Problems such as physical fatigue and psychological stress, inadequacy and/or neglect of the protective measures and health of these professionals do not have the same effect in the different categories, because the respective peculiarities should be taken into account to avoid the quality of patient care is affected.³

The challenges faced by the Federal Nursing Council and the Regional Nursing Council in the face of nursing care in the care of people with COVID-19 are directly related to the monitoring and support of the category in the daily life of the profession, highlighted by the structural difficulties of the working condition, devaluation of the specialist in the face of their technical responsibility, underemployment of the workforce , overwork and mental health-related problems.⁹

Brazilian nursing as a professional category is divided into three categories: nurse, nursing technician and nursing assistant; Their professional practice is standardized and supervised by the Federal Nursing Council (COFEN) and their regional councils (CORENS), also known as cofen / CORENS system. The agencies responsible for nursing professionals have the mission of ensuring the quality of the services provided, respecting the legislation that defines the rights and obligations of professionals and, above all, to ensure professional protection. In the current health and epidemiological scenario of COVID-19, it is understood that the complexity that encompasses the various work processes of care, especially in the prevention and treatment of those affected, with an impact on the pathological process or even on the death of these professionals is a challenge to be faced by all.⁹

Stressful factors for nursing during the Covid-19 Pandemic

The pandemic of severe acute respiratory syndrome of Coronavirus 2 (SARS-Cov2), better known as Novo Coronavirus 2019 (COVID-19), represents a

challenge for the global health system to be faced due to the number of people infected and the need for resources. In several countries, there is an explicit number of patients requiring hospitalization and intensive care in hospitals. Dealing with COVID-19 within health units requires professional diversity, which includes health professionals and support services: employees, maids, security guards and others. They are professional groups with different employment relationships, workloads and working hours.¹⁰

In this context, care is at the heart of health systems around the world. However, long working hours and differentiated working conditions due to regional and contractual differences expose these skilled workers to the risk of physical and mental illness, and may alienate them from work. Given this context so people during the pandemic have shown to live in full work with emotions at the peak, and situations of fear and anxiety have thrived in the face of this pandemic scenario. In addition to these feelings, others have been outthere, such as anguish, worry, anger and helplessness. Such feelings arise both from the uncertainty of what is to come and from the social isolation of family members who, in the midst of a risk situation, experience the conflict of departing from daily functions, even if they are often familiar. Financial and social conditions do not allow this option.¹⁰

The role of the care team in the face of the COVID-19 pandemic is highlighted, not only because it is a broad category in this context, but because most work in direct and daily contact with patients and put them at greater risk of contamination. In this context, it is observed that in first-line health care, some differential attitudes are essential for biosafety in the work process, as well as care when removing clothing to avoid contamination, observe hygiene measures and comply with hand washing.

The news and specialized literature highlight the number of deaths caused by the new disease generating fear and panic worldwide, because its treatment and mode of transmission are not yet fully understood. This panic is also common among health professionals, especially nurses who, by the nature of their work, are closer to the patient for 24 hours and become more susceptible to contamination.¹¹

Nursing is described by several media as one of the first-line professions in the fight against the patient of the new pandemic causes of Coronavirus. Effective, sensitive and direct help and care that ensure essential life support is not produced without care. It is necessary to confirm that its expressiveness and relevance require a socially referenced evaluation and care at all levels regarding health prevention.¹¹

It is known that the nursing work process is often characterized by high occupancy rates, long working hours, working hours, low wages, complex human relationships, lack of material and human resources, and skilled workers suffering from pain, suffering and death. All these determinants expose workers to situations of vulnerability that can lead to diseases. This context worsens in the face of public calamity due to the Covid-19 pandemic, as the workload becomes even greater and the shifts more stressful, along with fears of contamination, sometimes the lack of information flow and human and material scarcity. This can be perceived in the television media and social networks, which broadcast daily reports denouncing the working conditions of the care team in the current conjuncture, focusing on the lack of EPIs.¹²

It is interesting to note that at this moment, in addition to the adequate supply of PPE, it is also necessary to welcome nurses and open a listening room to meet their real needs and expectations, especially those affected by the new coronavirus. The quality of life in hospital and outpatient work in times of pandemics requires prerogatives as special care in order to prevent any type of contamination.¹³

In a research on the Working Conditions of Health Professionals in the Context of Covid-19 in Brazil, the following entities/institutions were supported by the following entities/institutions Conass, Conasems, CNS, Cofen, CFM, the following was found:

[...] The data indicate that 43.2% of health professionals do not feel protected in the work of coping with The Covid-19, and the main reason, for 23% of them, is related to the lack, scarcity and inadequacy of the use of EPIs (64% revealed the need to improvise equipment). The research participants also reported the widespread fear of becoming infected at work (18%), the absence of adequate structure to perform the activity (15%), in addition to inefficient hospitalization flows (12.3%). The technical unpreparedness of professionals to work in the pandemic was cited by 11.8%, while 10.4% reported the insensitivity of managers to their professional needs.¹³

In addition, the increased risk of nurses developing mental illness is evident due to the social isolation that keeps them away from their families and loved ones. There is a large number of deaths of patients under their care and these facts and new experiences with the death of colleagues due to contamination by SARV-CoV-2.²

In addition to this scenario, the configuration of an international economic crisis and the worsening of financial instability in Brazil can lead to widespread unemployment for both health workers and their families. Thus, there is a context of anxiety and panic disorder, depression, stress, insomnia, irritability, anger, signs of suicidal behavior and other manifestations that aggravate the mental health of health professionals and especially nurses.²

Challenge for nursing in the face of challenges

One of the great challenges for nurses in the face of the Covid-19 pandemic refers to working conditions. Given the inadequate infrastructure, mainly hospital beds, intensive care units and mechanical breathing apparatus (respirators) in the SUS, the implementation of "field hospitals" has been accelerated, a strategy that brings with it the immediate need for "outsourced" personnel without employment and without labor guarantee, which represents the so-called momentary overvaluation of health workers.³

The daily work of nurses includes adverse environment, poor working conditions, overload, intensive pace, long working hours, physical and mental stress, stress at work, interpersonal conflict, low salaries, professionals. During the pandemic, these conditions intensified, the exercise of the current profession, a prospective analysis of the health work they performed, their working conditions and patient safety.¹⁴

The emergency measures, although necessary, cause new problems resulting from the ignorance of institutional norms and the inexperience of professionals recruited about the procedures to combat the pandemic, which

requires greater efforts in terms of training and permanent training of these professionals.³

In addition, disease mapping has become an essential public health tool. In this context, the use of GIS (Geographic Information System) technology is a valuable tool to solve complex planning and management problems and to support decision-making in disaster management and epidemic propagation cycle. These technologies, with their rapid development and advances, have created innovative ways to study the health situation and its trends, enabling a better understanding of socioeconomic and environmental factors.¹⁵

Spatial analysis enables the implementation of health programs that cover several municipalities or regions of a state and play an important role in the diagnosis and planning of public health. COVID-19 has become a major public health challenge in all countries and its behavior and effects are still unknown. Therefore, studying its pattern of dissemination is fundamental to guide the next steps towards overcoming this crisis.¹⁵

Dealing with COVID-19 within health units requires occupational diversity that includes health workers and support services: employees, maids, security guards and others. These are categories of work with different employment, workloads and working hours. In a pandemic situation, physical and mental exhaustion is common among these workers. It becomes contradictory to act with ethics and responsibility in the midst of overwork. The constant situations of death and stress in often overloaded environments of patients with high viral transmittance require accurate and careful care, both in technical procedures and with rigid clothing and inattention as scientifically recommended.¹⁰

In this context, care is at the heart of health systems around the world. However, long working hours and different working conditions due to regional and contractual differences expose these skilled workers to the risk of physical and mental illness and can desuade them from work.¹⁰

The enormous workload in nursing is historical, and has a sharp increase in times of collective health crises, such as in times of pandemic. Health professionals care for their patients based on their clinical priorities or in a situation of total weakness. It is often necessary to make bioethically questionable decisions about which patients to care for and who will receive intensive respiratory support and monitoring, for example. Given this complex scenario, nursing care is even greater. In these circumstances, one can expect a rapid renewal of the workforce and the parallel increase in stress and psychosocial diseases.¹⁴

Universal public health systems, such as the SUS, are anchored in primary health care, and thus constitute one of the pillars of a society that respects the most basic human rights. Thus, measures such as the reorganization of the flows of service users during the pandemic and improvements in the physical structure of health units can and should be taken seriously at times such as Brazil covid-19.¹⁶

The literature states that awareness of individual protection, the provision of adequate EPIs in sufficient numbers and training according to national and international protocols can help reduce the risk of infection in health professionals. Despite intensive training and the correct technical procedures, there is still a risk of biological exposure during occupational activity, which

often leads to worker contamination. Due to the characteristics of technical activities, overload and tiredness, such exposure can occur and cause temporary vacation at work or even the death of the professional.¹⁰

We understand that due to the COVID-19 pandemic, nursing lives a unique moment due to work overload, the specificity of high transmission of the virus and the handling of specific protective equipment. An experience that is lived by both public and private networks in the country and even in the world. Care is believed to be a link of the multiprofessional health chain in the management of COVID-19, with emphasis on human life and worker health and patient safety. Faced with a challenging scenario for workers and institutions, the presence and positioning of councils and class associations is fundamental.¹⁰

Conclusion

Aiming to analyze the main challenges that nursing professionals have in coping with Covid-19. The research highlights that promoting the health of health professionals is essential to ensure emotional conditions and psychological adaptation of nurses in their toil.

Emerging challenges permeate the occupational health of health professionals, as the pandemic has generated fear and concern, as well as questions about the future after the chaos in public health.

The findings of this review indicate that in the current scenario of narrowing the curve of new indicators of coronavirus infection in the world, the consequences for mental health of nurses and other professionals in the hospital environment end up having impairment due to the deleterious effects of tensions and difficulties over a long period of time in the pandemic.

We concluded that coping with the pandemic by nursing requires joint and urgent measures to alleviate the fear and insecurity generated by COVID-19. It was perceived that it is necessary that there are strategic and punctual measures minimizing the overload, stress and psychological damage that affect nurses in the work environment.

Aknewledgment

This research did not receive funding for its realization.

References

1. Geremia DS et al. 200 Anos de Florence e os desafios da gestão das práticas de enfermagem na pandemia COVID-19. Rev. Latino-Am. Enfermagem, Ribeirão Preto, v. 28, e3358, 2020. Doi: <https://doi.org/10.1590/1518-8345.4576.3358>
2. Souza NVDO, Carvalho EC, Soares SSS, Varella TCM, Pereira SEM, Andrade KBS. Trabalho de enfermagem na pandemia da Covid-19 e repercussões para a saúde mental dos trabalhadores. Rev Gaúcha Enferm. 2021;42(esp):e20200225. doi: <https://doi.org/10.1590/1983-447.2021.20200225>
3. Teixeira CFS, Soares CM, Souza EA, Lisboa ES, Pinto ICM, ALR. A saúde dos profissionais de saúde no enfrentamento da pandemia de Covid-19. Ciênc. saúde coletiva. 2020. Doi: <https://doi.org/10.1590/1413-81232020259.19562020>

4. Oliveira, AC. Desafios da enfermagem frente ao enfrentamento da pandemia da COVID-19. *Rev Min Enferm.* 2020.
5. Quintana-Zavala MO, Paravic-Klijn, T, Saenz-Carrillo KL. Qualidade de vida no trabalho do pessoal de enfermagem de instituições públicas de saúde. *Rev. Latino-Am. Enfermagem.* 2016;24:e2713.
6. Brandau R, Monteiro R, Braile D.M. Importância do uso correto dos descritores nos artigos científicos. *Revista Brasileira de Cirurgia Cardiovascular*, 20 (1), VII-IX.2005. Doi: <https://doi.org/10.1590/S0102-76382005000100004>
7. Del-Masso MCS. Metodologia do Trabalho Científico: aspectos introdutórios. – Marília: Oficina Universitária; São Paulo: Cultura Acadêmica, 2012. 66 p. – (Educação especial na perspectiva da educação inclusiva) - volume 6.
8. Pereira MS. Coronavírus e a qualidade de vida no trabalho em enfermagem. Minas faz ciência, 2020. Disponível em: <https://minasfazciencia.com.br/2020/06/03/coronavirus-e-a-qualidade-de-vida-no-trabalho-em-enfermagem/>. Acesso em 02 de Maio de 2021.
9. Clementino FS, Chaves AEP, Pessoa Júnior JM, Miranda FAN, Medeiros SM, Martiniano CS. Enfermagem na atenção às pessoas com covid-19: desafios na atuação do sistema COFEN/CORENS. *Texto contexto – enferm*, 29: e20200251. 2020. Epub 21-Dez-2020. Doi: <https://doi.org/10.1590/1980-265x-tce-2020-0251>
10. Miranda FMA, Santana L de L, Pizzolato AC, Saquis LMM. Condições de trabalho e o impacto na saúde dos profissionais de enfermagem frente a Covid-19. *Cogitare enferm.* 2020 Doi: <http://dx.doi.org/10.5380/ce.v25i0.72702>
11. Gomes MP, Barbosa DJ, Gomes AMT, Souza FBA, Paula GS, Espírito Santo CC. Perfil dos profissionais de enfermagem que estão atuando durante a pandemia do novo Coronavírus. *J. nurs. health.* 2020;10(n.esp.):e20104026. Doi: <https://doi.org/10.15210/jonah.v10i4.18921>
12. Mota MS et al. Reações e sentimentos de profissionais da enfermagem frente à morte dos pacientes sob seus cuidados. *Revista Gaúcha de Enfermagem* [online]. 2011, v. 32, n. 1, pp.129-135. Doi: <https://doi.org/10.1590/S1983-14472011000100017>.
13. Leonel F. Pesquisa analisa o impacto da pandemia entre profissionais de saúde. Fiocruz, 2021. Disponível em: <https://portal.fiocruz.br/noticia/pesquisa-analisa-o-impacto-da-pandemia-entre-profissionais-de-saude>. Acesso em 01 de Maio de 2021.
14. 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>
15. Rex, FE, Borges, CASK, Pâmela S. Spatial analysis of the COVID-19 distribution pattern in São Paulo State, Brazil. *Ciência & Saúde Coletiva.* 2020, v. 25, n. 9. Doi: <https://doi.org/10.1590/1413-81232020259.17082020>
16. Sarti TD, Lazarini WS, Fontenelle LF, Almeida APSC. Qual o papel da Atenção Primária à Saúde diante da pandemia provocada pela COVID-19? *Epidemiol. Serv. Saúde.* 2020. <http://dx.doi.org/10.5123/s1679-49742020000200024>.

Correspondent Author
Gilney Guerra de Medeiros
Acre St., ZIP: 72876-241. Chácaras Anhanguera.
Valparaíso de Goiás, Goiás, Brazil.
gilneyguerra@gmail.com