

NURSING MANAGEMENT: REFLECTIONS ON THE CHALLENGES AND STRATEGIES FACING COVID-19

GESTÃO EM ENFERMAGEM: REFLEXÕES ACERCA DOS DESAFIOS E ESTRATÉGIAS FRENTE À COVID-19

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ABSTRACT

Objective: Reflect on the challenges and strategies used by the nurse manager facing COVID-19. Methodology: This is a thematic reflective study conducted from a bibliographic survey, from June to July 2020, at electronic databases, through the controlled descriptors "Nursing", "Nursing, Team", "Coronavirus Infections", "Decision Making, Organizational", "Professional Competence" and "Strategies". In the analysis, the data were organized into categories by content similarity. Results: The main challenges are related to the scarcity of human, technical and material resources, such as the organization of care in improvised Intensive Care Units, work overload, constant stress, lack of professionals, lack of training and personal protective equipment, in addition to frequent changes in care protocols. Among the management strategies of nursing, we highlight the reorganization of scales, the use of digital platforms, simulations, application of the Nursing Actives Score and the Methodologies SBAR, 6S and PDCA cycle. Final thoughts: reflections contribute to awakening in the nurse manager the need to advance in overcoming challenges and in the appropriation of strategies to combat COVID-19, in order to strengthen the management, resolution and integrality of care.

Keywords: Professional Competence. Decision Making, Organizational. Practice Management. Coronavirus Infections. Nursing.

RESUMO

Objetivo: Refletir acerca dos desafios e das estratégias utilizadas pelo enfermeiro gestor frente à COVID-19. **Metodologia:** Trata-se de um estudo reflexivo temático realizado a partir de levantamento bibliográfico, no período de junho a julho de 2020, em bases eletrônicas de dados, por meio dos descritores controlados "Nursing", "Nursing, Team", "Coronavirus Infections", "Decision Making, Organizational", "Professional Competence" e "Strategies". Na análise, os dados foram organizados em categorias por similaridade de conteúdo. **Resultados:** Os principais desafios estão relacionados à escassez de recursos humanos, técnicos e de materiais, como a organização da assistência em Unidades de Terapia Intensiva improvisadas, a sobrecarga de trabalho, o estresse constante, o déficit de profissionais, a falta de treinamentos e de Equipamentos de Proteção Individuais, além das mudanças frequentes nos protocolos assistenciais. Dentre as estratégias gerenciais de enfermagem, destacam-se a reorganização de escalas, o uso de plataformas digitais, simulações, aplicação do Narsing Actives Score e das metodologias SBAR, 6S e ciclo PDCA. **Considerações finais:** Essas reflexões contribuem para despertar no enfermeiro gestor a necessidade de avançar na superação dos desafios e na apropriação de estratégias para o combate à COVID-19, no intuito de fortalecer o gerenciamento, a resolutividade e a integralidade do cuidado.

Palavras-chave: Competência Profissional. Tomada de Decisões Gerenciais. Gerenciamento da Prática Profissional. Infecções por Coronavírus. Enfermagem.

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INTRODUCTION

With the emergence of the new scientifically called Severe coronavirus, Acute Respiratory Syndrome Coronavirus (SARS-CoV-2), etiological agent Coronavirus Disease 2019 (COVID-19), and its rapid global spread (1), the number of people infected seeking health services has increased, resulting in increased rates of hospitalizations and individuals requiring intensive care in hospital services. These facts have demanded from the health sector the need for material and human resources to cope with this disease, which has caused profound disorders and led health systems around the world to collapse (2).

The great transmissibility capacity of the new coronavirus affects not only the general population, but also many health professionals, especially the nursing team, who, by providing care directly to patients and dealing with the scarcity of materials and Personal Protective Equipment (PPEs)(3), it becomes one categories most of the vulnerable to the risks of infection by COVID-19, which, consequently, has been responsible for numerous work absences, increased work overload, mental illness and high death rates among these professionals ⁽⁴⁾.

These circumstances, in addition to directly affecting the work routine of health services, interfering in the scales and shifts of professionals, also negatively influence the management of care and the quality of nursing care, contributing significantly to the intensification of the current crisis in the health sector. In this sense, this problem requires nurses to develop their skills and managerial competencies, which consist of articulating and integrating actions, favoring, qualifying and contextualizing care, in a predictable or planned way ⁽⁵⁾.

In this context, the practice and management of nursing care are essential for organizing nursing work and human resources, because their performance is based on general competencies, including health decision-making, communication. care. leadership, management, permanent education and specific competencies such as: technicalscientific, ethical-political and socioeducational (5-6). These characteristics direct nursing activities in a more coordinated and organized way to qualified, comprehensive and efficient care (7).

Thus, the constant changes, advances in the scenarios of care practices and the current health conjuncture, considered by the World Health Organization (WHO) as one of the greatest health crises ever seen in the world, have been reflecting on changes in the organization of teams. Thus, these aspects require the nurse specialized knowledge, skills and managerial skills, as well as experience in the administrative area for the organization of sectors, material resources and equipment, for the recruitment and





dimensioning of nursing personnel and care ^(3,8), especially in the midst of these adversities and potential situations that weaken the quality and problem-solving capacity of health care.

Therefore, this study aims to reflect on the challenges and strategies used by the nurse manager facing COVID-19.

METHODOLOGY

This is a thematic reflective study, developed during the discipline Epistemological and Philosophical Bases of Health and Nursing Sciences of the Doctoral course in Nursing of the Postgraduate Program in Nursing of the Federal University of Piauí (PPGEnf/UFPI). This type of study guides the individual, through the reflection of literary sources, to understand and build knowledge on a given subject, approaching the qualitative approach, since it interprets and analyzes theoretical elements obtained through the bibliographic survey (9-10).

Data were investigated from June to July 2020, based on the search for challenges information about the and strategies used by nurses, through the management skills in times of COVID-19 pandemic. Scientific articles published in 2020 were used, which contemplated the proposed objective and were available in electronic databases: Cumulative Index to Nursing and Allied Health Literature

(CINAHL); Medical Literature Analysis and Retrieval System Online (MEDLINE) by Pubmed and SCOPUS, using the controlled descriptors MESH/CINAHL: "Nursing", "Nursing, Team", "Coronavirus Infections", "Decision Making, Organizational", "Professional Competence" and "Strategies". The temporal delimitation is justified by the fact that this pandemic began in December 2019 and is still occurring in several regions of the planet.

The eligibility process of the articles, initially, occurred by reading titles and abstracts and, later, with the full reading of those that were appropriate to the objective of the reflection. From this perspective, the selected articles supported the construction of the results and discussion. After thorough reading and analysis, it was possible to organize, by content similarity, the reflection in two centers of significance: challenges faced by the nurse manager facing COVID-19; and strategies in nursing management compared to COVID-19. Thus, it was possible to discuss all the information in the reflective light of the theme in question.

RESULTS AND DISCUSSION

Challenges faced by the nurse manager facing COVID-19

The health crisis caused by COVID-19 has brought numerous challenges both in the





health and administrative aspects. Thus, several managerial competencies were required from nurses in their work process, which are considered essential for the service effectively developed, however. considering the individual and organizational competencies, several challenges emerged before COVID-19, such as the lack of human, technical and material resources, which contributed to the worsening of the situation, hindering the functionality of the services offered by the nurse manager.

In management work, health leaders must make decisions based on scientific, economic, political-governmental, ethical, sociocultural and organizational considerations. These considerations influence leadership behaviors, which directly affect the work and well-being of the frontline nursing team (11).

The use of improvised Intensive Care Units (ICUs), the work overload of nursing professionals, due to the reduced staff to the detriment of the greater contagion of the disease, and stress directly impact on the services offered to users and, consequently, on nursing management ⁽¹²⁾. In addition to this, other difficulties are being incorporated, such as the lack of training to deal with patients affected with the disease ⁽¹³⁾.

The nurses' work routine was modified, with the reorganization of care offered to patients with COVID-19, so that fewer complications appeared and that the

work flowed in such a way that it did not paralyze the care flow. Thus, the efforts of nursing managers to adapt the team under their responsibility, the complexity of the lack of PPEs, associated with the emotional overload of professionals when caring for patients infected by COVID-19, are major challenges (14).

In Brazil, the Federal Nursing Council has received more than 3,600 complaints about lack, scarcity or poor quality of PPEs, including masks, gloves and aprons, which has increased the concern of both the population and health service professionals, especially the nursing team for continuous care to patients (13).

The need for using multiple PPE by professionals considerably increased the nursing workload and fatigue, because the use of these protective devices increases body temperature, being tolerable for a few hours (15) and also makes it impossible for the professional to perform basic needs of nutrition and elimination, besides causing pressure injury due to prolonged use (13).

In view of this situation, the reorganization and reduction of working hours were necessary to reduce exposure time and exhaustion, but are hampered by the unavailability of professionals due to illness or because they are in the groups at higher risk. Thus, the recruitment of new nursing professionals was indispensable; however, it brought with it another problem for the nurse



manager: the unpreparedness of most of these professionals to work in the most requested sectors, such as ICUs and emergencies.

The reorganization of health services was necessary not only in institutions of direct coping with COVID-19, but also in specialized services that could not restrict their care, such as hemodialysis care ⁽¹⁶⁾ and chemotherapy, which faced similar difficulties for the administration of care.

In another aspect, public fear and the rapid dissemination of COVID-19 have made the planning and organization of health services much more challenging for nurse professionals managers, since health commonly do not have training preparation to meet pandemics or disasters (18). The pandemic, considered a natural disaster, created an unprecedented demand for human and material resources, which quickly ran out.

This overwhelming situation led to another administrative conflict, because the managerial ability to inspire calm, trust and respect for subordinates was affected in the COVID-19 pandemic, before many dilemmas and uncertainties that had an effect on care management (18). Health professionals expect management and the institution to guide them correctly, but end up experiencing cognitive dissonances, before frequent changes in recommendations, as new scientific evidence emerges, causing constant changes in care protocols (11).

A quantitative study with physicians and nurses in England showed weaknesses in professional safety: only one third of the 850 interviewees agreed that they felt supported by trust in management; only half of the interviewees reported that adequate training was provided to the frontline team and two thirds of the interviewees considered that they did not have PPEs available (19).

Thus. the psychological stress experienced by nursing professionals has a multifactorial cause, such as: working in a modified and overloaded environment; dealing with a new infectious disease; distancing from the family; and the fear of being unprotected (20). The illness and deaths of people around them, including co-workers, contributed to shake the mental health of professionals (19).

Many health professionals have been removed from the services due to their susceptibility to infection. In Brazil, 3.4% of them died from COVID-19. In Italy, 20% of those who worked on the front line had the infection and many died and, still, when analyzing data from professionals working in the fight against the new coronavirus, it was noticed the presence of physical and mental exhaustion, difficulties in decision-making and their higher risk of infection (21).

Nurses are also feeling fear of the unknown and concern about what is to come, for themselves, for their patients, colleagues, as well as for their own families and friends.





In addition to nurses, these professionals are parents, siblings, friends and partners with all the concerns shared by most people, caring for and protecting themselves, family and patients (22).

Another challenge for the nurse manager is to take care of the mental health of nursing professionals, as they suffer from the stress of caring for patients and their families at the same time, during the COVID-19 crisis. They are especially vulnerable to the psychological impact of this crisis and are at risk of developing depression, anxiety, insomnia, posttraumatic stress and exhaustion (11). From this perspective, ensuring the safety of nursing professionals is fundamental to minimize these impasses faced by frontline workers. Maintaining the trust of subordinate staff is an important challenge for nurse managers to maintain their leadership and authority, necessary in the administration of care.

Strategies in nursing management in COVID-19

Due to the intense burden caused by COVID-19 to health services and professionals, especially to the nursing team, ICU in Italy applied the Nursing Actives Score (NAS) to measure the daily nursing workload in order to manage care, which indicated a 33% increase in workload during the pandemic. One of the changes in the

routine, which impacted this overload, was the implementation of the positioning all patients with COVID-19 in pronation ⁽¹⁵⁾. Thus, the NAS is a useful tool in this pandemic context, because it enables adequate nursing dimensioning in intensive care, which contributes to the organization of the work process and patient safety ⁽²³⁾.

In Spain, the strategies used in ICU nursing management were: the relocation of nurses from other sectors who had experience in critical care, the reorganization of scales with six hours of work to reduce the cost of PPEs and the risk of contagion, the suspension of vacations and time off, increased work contracts for full-time and the review of procedures to observe the degree of exposure and list the necessary PPEs (14).

Moreover, nurses inexperienced in the care of critically ill patients were trained by professionals from the unit itself, while doing the daily work. These nurses initially were only in clean areas. To minimize the tension of these professionals, the Covid Critics Training 19 training program was established, with face-to-face workshops, containing simulations, and online training. In addition, a guide to the most commonly used medicines was printed in order to answer doubts about dilution, concentration, conservation and routes of administration. These management practices were essential for the optimization of nursing care (14).





In China, team management was based on efficient communication, based on the SBAR methodology (situation, brief history, evaluation and recommendation), which facilitated the passage of duty, reducing omissions and the chances of errors. To minimize the contamination of professionals and ensure the culture of organizational security, the 6S methodology was used, which consists of the use, storage, cleaning, health and hygiene, organization and self-discipline. Moreover, they began to monitor the professionals in relation to the signs and symptoms of the flu (20). It is noteworthy that these management methodologies, which unfortunately is not the reality in many Brazilian scenarios, allow the integrality of care and the safety of patients professionals.

Leadership, exercised by the nursing manager, with clear and accurate information, as well as the concern with the team's working conditions and the incessant search for improvements, is fundamental to pass credibility and motivate the nursing team. The mentoring carried out by experienced nurses, from digital media and social networks, are also strategic tools that allowed exchanges of experiences and directions, especially for those professionals who did not have training and continuing education in coping with COVID-19 This reinforces the importance of trained managers with expertise

in the area, in addition to the reinvention of nursing in the dissemination of knowledge.

The use of digital platforms facilitates decision-making by the interdisciplinary team, optimizing the assistance to people with COVID-19 and the management of health services. These platforms also ensured the humanization of care, since they allowed communication between hospitalized patients and family members (24). Moreover, nurses, in care management, can use media advertising to promote health education and raise awareness among people about the forms of prevention, control and risks of COVID-19 (25). After all, we live in the age of fake news and the correct information needs to reach the population.

The concern with the mental health of nursing professionals was evidenced in New Zealand, where the professionals were inserted in a well-being group, besides having the use of a mobile application assistance, which offered psychological support, attention and affection to each one, which softened this routine of uncertainties, fear and anxiety towards COVID-19 (24). Thus, initiatives such as this should be expanded worldwide, because managers and nursing professionals on the front line, due to the stressful routine and the high risk of infection by the new coronavirus, end up presenting physical and emotional exhaustion and often feel hopelessness.





The application of the PDCA cycle (plan, do, check and act) was a management strategy used to standardize and improve the quality and performance of the nursing team in China. In the planning, problems and possible solutions were raised. Among the problems evidenced in the COVID-19 ICU, the following stood out: unclearly defined contaminated areas, unclear roles and responsibilities, disorganization of supplies, ineffective shift handover and high waiting time for medication reception (26).

Thus, after the team's suggestions, the management plan was carried out, which contemplated all the identified demands. In the do step, regular training and updates were developed with a focus on problems. In the check, the nursing manager made an inspection, at least weekly, to evaluate the performance of the team, using form. In the action stage, improvements were offered and new problems were identified for the next cycle. The PDCA cycle improved the professionalism and skills of the nursing team, ensuring the quality of care, and was an effective management tool in the context of COVID-19 (26).

Finally, as well as the other types of research, this reflection presented limitations originated by the absence of more specific studies focused on the theme. The lack of research with more robust and investigative methodologies presented themselves as the

main restrictions found for a more in-depth discussion on the subject.

FINAL THOUGHTS

From this perspective, the main challenges faced by the nurse manager facing COVID-19 are related to the scarcity of human, technical and material resources. Thus, the organization of care in improvised ICUs, work overload, constant stress, deficit of professionals, lack of training and PPEs, in addition to frequent changes in care protocols are obstacles experienced in nursing management.

This challenging pandemic scenario of COVID-19 showed the role of nursing in care, as well as the management capacity of nurses, with the development of strategic actions, such as the reorganization of scales, the use of digital platforms, training with clinical simulations, application of NAS and SBAR methodologies, 6S and PDCA cycle, which boost and strengthen the resolution of care, integrality, quality and safety in service.

Therefore, these reflections contribute to the need to advance in overcoming challenges and in the appropriation of strategies to combat COVID-19. In this assumption, original studies on the theme should be conducted in order to guide more assertive actions in nursing management.





REFERENCES

- 1. Meneses AS. Gerenciamento Emergencial de Recursos da Atenção Primária a Saúde no Enfrentamento à Pandemia da COVID-19. SciELO Preprint. 2020;1(1):1-13. Disponível em:
 - https://doi.org/10.1590/SciELOPreprints.557
- 2. Miranda FMDA, Santana L, Pizzolato AC, Sarquis LMM. Working conditions and the impact on the health of the nursing professionals in context of covid-19. Cogitare the enferm. 2020; (25):e72702. Disponível em: http://dx.doi.org/10.5380/ce.v25i0.727 02
- Pereira MD, Torres EC, Pereira MD,
 Antunes PFS, Costa CFT. Sofrimento emocional dos Enfermeiros no contexto hospitalar frente à pandemia de Covid-19. Research, Society and Development. 2020; 9(8):e67985121.

 Disponível em: http://dx.doi.org/10.33448/rsd-v9i8.5121
- Souza SLPS, Souza AG. Enfermagem brasileira na linha de frente contra o novo Coronavírus: quem cuidará de quem cuida? J nurs health. 2020; 10(n.esp.): e20104005. Disponível em:

- https://periodicos.ufpel.edu.br/ojs2/ind ex.php/enfermagem/article/view/1844 4/11237
- Treviso P, Peres SC, Silva AD, Santos AA. Competências do enfermeiro da gestão do cuidado. Rev Adm Saúde. 2017; 7(69):14. Disponível em: http://dx.doi.org/10.23973/ras.69.59
- Souza JO, Machado VB, Sousa ALRS.
 Competências gerenciais do enfermeiro: uma revisão integrativa.
 Rev Ciências da Saúde e Educação IESGO. 2019; 1(2):1-20. Disponível em:
 - http://revista.iesgo.edu.br/ojs/index.ph p/CSEI/article/view/27
- Berghetti L, Franciscatto LHG, Getelina CO. Formação do Enfermeiro Acerca do Gerenciamento: Entraves e Perspectivas. Rev enferm Centr-Oeste Min. 2019; 9:e2820. Disponível em: http://dx.doi.org/10.19175/recom.v9i0.2820
- Soares MI, Resck ZMR, Terra FS.
 Saberes gerenciais do enfermeiro no contexto hospitalar. Rev bras enferm.
 2016; 69(4):676-83. Disponível em:
 http://dx.doi.org/10.1590/0034-7167.2016690409i
- Silva JS, Carvalho ARB, Leite HDCS, Oliveira EMN. Reflexiones sobre los riesgos ocupacionales en trabajadores de salud en tiempos pandémicos por COVID-19. Rev cuba enferm. 2020;





- 36(2):e3738. Disponível em: http://www.revenfermeria.sld.cu/index
 .php/enf/article/view/3738
- 10. Ibiapina ARS, Monteiro CFS, Silva Júnior FJG, Costa APC, Campos LRB, Brito VS. Oficinas terapêuticas em Centro de Atenção Psicossocial: para além dos muros da loucura. Rev enferm UFPI. 2019; 8(3):92-5. Disponível em: https://doi.org/10.26694/2238-7234.8392-95
- 11. Caresse L, Connie V. A pandemic crisis: mentoring, leadership, and the millennial nurse. Nursing Economic. 2020; 38(3):152-4. Disponível em: http://www.nursingeconomics.net/necfiles/2020/MJ20/152.pdf
- 12. Raurell-Torredà M, Martínez-Estalella G, Frade-Mera MJ, Carrasco RRLF, Romero ESP._Reflexiones derivadas de la pandemia COVID-19. Enfermería Intensiva. 2020; 31(2):90-3. Disponível em: https://doi.org/10.1016/j.enfi.2020.03.
- 13. Oliveira AC. Desafios da enfermagem frente ao enfrentamento da pandemia da Covid19. REME rev min enferm. 2020; 24:e-1302. Disponível em: http://www.dx.doi.org/10.5935/1415-2762.20200032
- 14. Raurell-Torredà M. Gestión de los equipos de enfermeira de UCI durante

- la pandemia Covid-19. Enferm intensiva. 2020; 31(2):49-51. Disponível em: https://doi.org/10.1016/j.en fi.2020.04.001
- 15. Lucchini A, Giani M, Elli S, Villa S, Rona R, Foti G. Nursing Activities Score is increased in Covid-19 patients. Intensive Criti Care Nurs. 2020; 59(1):102876. Disponível em: https://doi.org/10.1016/j.iccn.2020.10
- 16. Harwood L. Pandemic Uncertainty:

 Considerations for Nephrology

 Nurses. Nephrol Nurs J.

 2020; 47(2):127–30.

 https://doi.org/10.37526/1526-744X.2020.47.2. 127
- 17. Ramos RS. A Enfermagem Oncológica no Enfrentamento da Pandemia de Covid-19: Reflexões e Recomendações para a Prática de Cuidado em Oncologia. Rev bras cancerol. 2020; 66(TemaAtual):1-5. Disponível em: https://rbc.inca.gov.br/revista/index.ph





- &AN=143616920&h=30OAF%2BC XvCx3I3Gu6nHAsyPlnZurG65IBRdF 9RnMoCKhPqBHNn2fco47dsc0A5a mnnMEmtKY7RDOdvGeU4Gl0g%3 D%3D&crl=f
- 19. Iqbal MR, Chaudhuri A. COVID-19:
 Results of a national survey of United
 Kingdom healthcare professionals'
 perceptions of current management
 strategy A cross-sectional
 questionnaire study. Int J Surg.
 Disponível em:
 https://doi.org/10.1016/j.ijsu.2020.05.
- 20. Tang L, Zhao XM, Yu XY. Team management in critical care units for patients with COVID-19: an experience from Hunan Province, China. Crit care. 2020; 24(304)1-3. https://doi.org/10.1186/s13054-020-02921-7
- 21. Medeiros EA. A luta dos profissionais de saúde no enfrentamento da COVID-19. Acta Paul Enferm. 2020;33:e-EDT20200003. Disponível em: https://doi.org/10.37689/acta-ape/2020edt0003
- 22. Jackson D, Bradbury-Jones C, Baptiste D, Gelling L, Morin K, Neville S, et al. Life in the pandemic: Some reflections on nursing in the context of COVID-19. J Clin Nurs. 2020; 29(1):2041-43. Disponível em: https://doi.org/10.1111/jocn.15257

- 23. Cyrino CMS, Dell'Acqua MCQ, Castro MCN, Oliveira EM, Deodato S, Almeida PMV. Nursing Activities Score by assistance sites in Intensive Care Units. Esc Anna Nery Rev Enferm. 2018; 22(1):e20170145. https://www.scielo.br/pdf/ean/v22n1/pt_1414-8145-ean-2177-9465-EAN-2017-0145.pdf
- 24. Sutton-Smith L. Planning for a Covid-19 crisis: a new era of critical care nursing began at Wellington Hospital's intensive care unit in March as staff began preparing for a possible catastrophe. Nurs N Z. 2020; 26(4):26-28.
- 25. Zhang XJ, Shi TY, Sun L. COVID-19: What is next for nursing in public health emergency? Nurse educ pract. 2020; 46:102821. Disponível em: https://doi.org/10.1016/j.nepr.2020.10
- 26. Chen Y, Zheng J, Wu D, Zhang Y, Lin Y. Application of the PDCA cycle for standardized nursing management in a COVID-19 intensive care unit. Ann palliat med. 2020; 9(3):1198-205. Disponível em: http://dx.doi.org/10.21037/apm-20-1084

Submission: 2021-03-15

Approval: 2021-03-19

