PRIMARY HEALTH CARE NURSING IN THE FIGHT AGAINST THE COVID-19 PANDEMIC

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ABSTRACT

Objective: to report care experiences of Primary Health Care nurses, in the city of Florianópolis/Santa Catarina, in the fight against the COVID-19 pandemic. **Method:** this is a descriptive experience report about the organization and development of Primary Health Care nurses' work process in the fight against the COVID-19 pandemic. **Results:** we described how the assessment and management of respiratory symptomatic people who sought primary care was carried out, the experience with testing and early detection of COVID-19, monitoring of suspected cases as a strategy to combat the pandemic, as well as nurses' role acting on all fronts of coping with the pandemic. **Final considerations:** nursing plays a fundamental role in the fight against the COVID-19 pandemic, linked to the use of a protocol and health care, thus assuming, for the most part, the front line of this scenario.

Keywords: Nursing. Primary Health Care. Pandemic. COVID-19. Coronavirus.

INTRODUCTION

In December 2019, the World Health Organization (WHO) identified in the city of Wuhan, Hubei Province, China, a new type of coronavirus, which was called Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), being responsible for the disease Coronavirus Disease 2019, recognized by the abbreviation COVID-19⁽¹⁾. In Brazil, epidemic was declared a Public Health Emergency of National Importance on February 3, 2020. With the notification of more than 110,000 cases and 4,000 deaths in countries on all continents, the WHO declared the COVID-19 pandemic on March 11, 2020(2), advising the countries of the world to act through nonpharmaceutical interventions and preventive measures, such as social distancing and social isolation, seeking to control their spread and seeking to face one of the greatest health

challenges of this century⁽³⁾.

This situation imposes challenges on health surveillance, seeking continuous investment in public policies, considering measures that reduce inequalities in access to health systems and the structural conditions for coping with COVID-19.

In Brazil, several measures were taken to reduce contact, such as the reorganization of teaching based on remote work, closing of public environments and large circulation of people, as well as the mandatory use of masks in all spaces, in addition to the prohibition of staying in places such as squares, parks and beaches. In this context, daily behaviors were reviewed, with the reinforcement of hygiene measures, intensification of hand hygiene and/or use of 70% alcohol⁽⁴⁾.

Inserted in this pandemic and surrounded by so many social, political and economic maladjustments, there are those who announce that nursing professionals are engaged in the

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response to COVID-19 and, with adequate support, will be the main actors in facing this pandemic. Thus, they are required to have the critical ability to make clinical inferences, predict risk situations, plan and guarantee life-sustaining care to those who depend on them and, at the same time, redouble surveillance on the risks of spreading the disease in an organized, systematized and science-based way⁽⁵⁾.

In the context of coping with COVID-19, uncertainties have emerged, translating a feeling of helplessness, which, at the same time, has led nurses to review concepts, reconfigure actions, experiencing fear naturally, having it present in work and personal relationships. Thus, the guiding question of this study emerged: how is the experience of the work process in the fight against the COVID-19 pandemic in Primary Health Care (PHC) in the city of Florianópolis? It aims to report care experiences of PHC nurses in the city of Florianópolis in the fight against the COVID-19 pandemic.

METHOD

This is a descriptive experience report about the organization and development of the work process in PHC in the fight against the COVID-19 pandemic in the city of Florianópolis, Santa Catarina.

This experience report is described from the perception and experiences of nurses who worked on the front line to combat the COVID-19 pandemic. The institutional flows and protocols established by the municipal management are also described.

RESULTS AND DISCUSSION

Assessment and management of respiratory symptoms in Primary Health Care

When the Family Health Strategy teams (FHSt) were informed about COVID-19 transmission in the city, in March 2020, they started using a guide – COVID-19 Guide for Primary Care Professionals – Florianópolis version 2020⁽⁴⁾. Based on this guidance, the teams reorganized the access flows to services in PHC, aiming at the safety of users and

professionals, as well as early detection of suspected cases of COVID-19. An exclusive inbound and outbound flow was organized for patients with recent respiratory symptoms or who were contacts of confirmed COVID-19 cases. To this end, every person who sought a Health Center (HC), regardless of the reason for care, was screened by a health professional. Before entering HC, every patient was asked if they reported, at the time or in the last 7 days, one or more of the following symptoms: fever/fever feeling, cough, runny nose/runny nose, altered smell/taste, sore throat, headache and chills. If yes for anyone, patients were referred to a specific room for caring for people at risk of having COVID-19. If not for everyone, it was still questioned whether patients were contact with a confirmed case of COVID-19. If yes, the same was also sent to the specific care room for COVID-19.

Access to this room was through the side of the HC and not through the main door, thus preventing patients at risk for COVID from circulating in the same space as other users.

Users with respiratory symptoms were referred for care in a specific room, and each HC adapted this space to its physical structure. The choice of location was based on the possibility of maintaining the distance between users, in addition to being a large and airy place.

At first, it was assessed whether users needed urgent attention or not, based on the criteria established in a care protocol⁽⁶⁾. Based on this assessment, management and referral were performed, when necessary. Users who needed urgent attention were referred to the Emergency Care Unit (ECU) or to Hospital Care. Those that did not need urgent attention were managed exclusively in PHC. This service was performed by physicians or nurses, however, in the authors' experience, it was noticed that most of care was performed by nurses from the nursing process.

As a strategy to combat the pandemic, suspected cases were in home isolation, and their contacts were instructed to remain in home restriction for a period of ten to fourteen days, respectively. During this period, testing (RT-PCR or SARS COV-2 IgG/IgM Serological Test) was scheduled, according to the appropriate time of care in relation to the onset of symptoms.

The city did not adopt any early treatment protocol; therefore, clinical complaints were managed according to each individual. The use of analgesics and antipyretics, when necessary, and/or other non-drug measures to relieve symptoms was advised. During the period of home isolation, users were monitored by FHSt. Monitoring details will be addressed in a specific chapter.

Experience with testing and early detection

In the fight against the COVID-19 pandemic, a complex challenge to public health, health services as a whole needed to quickly organize their work routines, as well as PHC.

In an epidemic, the primary objective for its containment is to reduce disease transmission. In SARS-CoV-2 transmission, a potential tool to reduce its transmission is the identification and isolation of contagious people⁽⁷⁾. In the context of the pandemic, the discussion about testing to identify infected individuals has been gaining prominence.

In this context, the Municipal Health Department (MHD) of the city of Florianópolis has been standing out for an organized work process outlined by a protocol carefully prepared based on the best scientific evidence. In addition to an updated protocol, the creation of a COVID-19 support group was also organized, in which FHStand ECU network professionals had access to the discussion of cases and space to ask their questions regarding the guide itself and clinical decisions. The care protocol has been updated. according to the need and dynamism of the pandemic. It guides, among the various behaviors, on the management, decision of which test professionals should perform and also when to retest⁽⁶⁾.

In this context, among the various practices developed, in addition to circulation restriction, contact tracing, there is an important ally, testing for the early detection of cases of COVID-19. It is recommended that the results of tests for SARS-CoV-2, whether serological or molecular, called reverse transcription-polymerase chain reaction (RT-PCR), should not be assessed in isolation. To define the testing strategy, it is essential to know the tests and define the appropriate testing time:RT-PCR test for virus

RNA detection corresponds to cell smear collection by nasopharyngeal swab (right and left nostril)between the 3rd and 7th day of the onset of symptoms and/or between the 5th and 12th day of the last contact with the confirmed case (for asymptomatic contact);and rapid test for antibody detection corresponds to capillary blood sample collection from the 10th day of the onset of symptoms and/or from the 14th day for asymptomatic contact who has not had a history of previously confirmed COVID-19⁽⁶⁾.

RT-PCR testing is considered a standard methodology for COVID-19 diagnosis, and the result takes up to 7 days to be released and it is also necessary for a qualified professional to collect the material. On the other hand, the quick test is easy to perform and the result is released after 15 minutes, at the time of consultation – in timely manner.

Thus, the city regulates a COVID-19 testing and tracking strategy with tests for suspected cases and for asymptomatic close/home contacts of confirmed cases. It also defines the opportune period for each test, whether serological or RT-PCR, considering factors such as sensitivity, specificity, estimation of incubation time and positivity, positive and negative predictive values for each case, in addition to the possibility of false positive and/or negative⁽⁶⁾.

In the face of the COVID-19 pandemic in PHC, nursing is a category that works on the front line, and specifically nurses have joined their scientific knowledge and skills as a tool in this fight.

In the implementation of testing for COVID-19, at the beginning of the pandemic, the city relied on the Municipal Laboratory of Florianópolis (LAMUF - *Laboratório Municipal de Florianópolis*) to carry out tests for COVID-19 detection. In order to increase testing in the city, there was a movement to organize the work in this direction.

At first, the city started testing through rapid tests at a central point identified as a drive-thru. At that time, nurses were at the forefront performing the blood collection for testing, assessing the results and approving the rapid tests. Suspected users for COVID-19, previously notified and scheduled, attended the drive-thru – located in downtown Florianópolis – and there they were tested inside their cars. After testing,

users were instructed on the results and, when necessary, referred to the Epidemiological Surveillance Duty, also present in that drive-thru space, in order to continue the investigation of cases and contacts.

In a second moment, it began with testing for COVID-19 carried out in the HC through rapid tests, carried out by trained nurses and physicians. These tests took place at the time of consultation when, in timely manner, it was related to the onset of symptoms. If necessary, testing was scheduled for another date.

In a third moment, another testing front was started for the detection of COVID-19. In addition to the tests carried out at the CS and LAMUF, the RT-PCR testing took place in Testing Centers (TC) exclusively for the disease, distributed by Health Districts – South, North, Midwest, Mainland TC – where suspected cases of COVID-19 and asymptomatic contacts of confirmed cases are previously scheduled. Results were released after a few days of testing through patient referral teams.

The COVID-19 pandemic has reaffirmed the important role of diagnosis in communicable disease management. Intensive diagnostic testing has certainly contributed to controlling COVID-19 transmission in some countries and, therefore, long-term investment in diagnostic tests is necessary⁽⁷⁾.

Thus, it is essential that PHC be recognized and receive adequate funding to carry out the care processes both for people affected by COVID-19 and for longitudinal health monitoring in the territories⁽⁸⁾.

Monitoring of suspected cases: a tool in the fight against the pandemic

The world scenario of the pandemic is directly related to the high transmissibility and high spread of SARS-CoV-2. In this context, seeking to stop the increase in the number of cases in the city, another tool used in the fight against the COVID-19 pandemic, in addition to the assessment and management of respiratory symptoms, testing and early detection, was the monitoring of suspected and confirmed cases.

In this sense, the care protocol also guides health professionals to regularly monitor suspected cases under investigation and confirmed cases for COVID-19. Monitoring should take place on days one (D1), three (D3), seven (D7), ten (D10) and fourteen (D14), and in the updated version of the protocol, D14 was removed from monitoring⁽⁶⁾.

After identifying suspected cases of COVID-19, either by face-to-face consultation or teleconsultation, patients were notified with CID B972 at the health service where they received care. The FHStin the city have computerized medical records and receive a daily list of the names of notified cases, recorded by the most diverse notifying units, through the computerized system, which is also fed by the city's Epidemiological Surveillance, when the notification comes from other health services, such as hospitals, laboratories and clinics.

Thus, on a daily basis, health professionals responsible for monitoring should enter the system and search for the CID corresponding to the notifiable disease (in the case of COVID-19, CID B972) and for the reference unit, i.e., the HC that was working. For notifications made in another service outside the network, it was guided to carry out a teleconsultationfor team presentation, verification and application of established flow, including guidelines on isolation and investigation of contacts, as well as home restriction and testing.

After assessing the test result, if the result is undetectable and patients are asymptomatic, they are released from isolation, the information is delivered, being advised that they have probably not come into contact with coronavirus, but that the result is not 100% guaranteed, and that there was no infection and/or that they are not infected. If testing is undetectable and patients remain symptomatic, they and retesting are reassessed, with a need to remain in isolation for up to 10 days from symptom onset. If the result is detectable and after ten days of isolation (or fourteen days from the last contact), and patients, in the last 24 hours, do not have fever, cough, runny nose and sneezing, they are released from isolation, otherwise, they must keep in isolation. If patients remain symptomatic for more than 3 weeks, they are assessed for suspected post-COVID-19 syndrome. In the case of patients with a history of hospitalization, isolation will be for 20 days after the onset of symptoms⁽⁶⁾.

It is noteworthy that, due to the difficulty of carrying out isolation at home, a vacancy in a hotel provided by the city was verified with social assistance. It is also noteworthy that, in the case of refusal or breaking of isolation, the case would be registered as a situation of breach of isolation in a specific document available by the Epidemiological Surveillance.

All monitoring was recorded in patients' electronic medical records as well as their closure and outcome.

In the COVID-19 pandemic, epidemiological monitoring and the production of health information become extremely relevant strategies to subsidize, in a qualified way, decision-making, preparing forecasts and programming health and assistance policies, aiming at their effective control^(9,10).

This experience report has as a limitation the difficulty of some professionals in following the protocol and keeping up to date with reissues, especially when cases come from out-of-network reporting units, where differentiated guidelines sometimes occur and home isolation and home restriction behaviors do not seem to be sufficiently reinforced, undermining an important tool to stop the pandemic.

FINAL CONSIDERATIONS

The present experience report indicates the importance of PHC nurses' role in the city of Florianópolis, where they play a fundamental role in the COVID-19 pandemic, and which, linked to the use of a protocol, has been taking over, for the most part, the front line of this scenario. Coping with COVID-19 requires assertive and qualified conduct from professionals, in order to contribute to an effective disease management.

The work process organization, with the approach and tracking of patients with respiratory symptoms in PHC and their contacts, through a protocol, guides nursing professionals' behavior, provides autonomy in their decisions, contributing to quality of care and the individual protection of professional and team.

Further studies are recommended on the importance of nursing role in its work process in combating the COVID-19 pandemic in PHC. It is necessary to reflect on the relevance of the work process organization, with the use of protocols based on scientific evidence and a support group to strengthen nursing work, with a view to qualifying assistance in the face of the fight against the pandemic.

A ENFERMAGEM DA ATENÇÃO PRIMÁRIA À SAÚDE NO COMBATE À PANDEMIA DEA COVID-19

RESUMO

Objetivo: relatar a experiência assistencial de enfermeiras da Atenção Primária à Saúde, do município de Florianópolis/Santa Catarina, no combate à pandemia de COVID-19. **Método**: trata-se de um relato de experiência de abordagem descritiva acerca da organização e desenvolvimento do processo de trabalho de enfermeiras inseridas no contexto da Atenção Primária à Saúde no combate à pandemia de COVID-19. **Resultados**: descrevem como foi feita a avaliação e manejo das pessoas sintomáticas respiratórias que buscavam a atenção primária, a experiência com a testagem e detecção precoce da COVID-19, o monitoramento dos casos suspeitos como uma estratégia de combate à pandemia, bem como o papel do enfermeiro atuante em todas as frentes de enfrentamento da pandemia. **Considerações finais**: a enfermagem ocupa um papel fundamental no combate à pandemia de COVID-19atrelado ao uso de um protocolo e os cuidados de saúde, assumindo, assim, em sua grande maioria, a linha de frente deste cenário.

Palavras-chave: Enfermagem. Atenção Primária à Saúde. Pandemia. COVID-19. Coronaviírus

ATENCIÓN PRIMARIA DE LA SALUD EN LA LUCHA CONTRA LA PANDEMIA DE COVID-19

RESUMEN

Objetivo: relatar la experiencia asistencial de enfermeras de la Atención Primaria de la Salud, del municipio de Florianópolis/Santa Catarina-Brasil, en el combate a la pandemia de COVID-19. **Método:** se trata de un relato de experiencia de enfoque descriptivo acerca de la organización y el desarrollo del proceso de trabajo de enfermeras insertadas en el contexto de la Atención Primaria de la Salud en la lucha contra la pandemia de COVID-19. **Resultados:** describen cómo se realizó la evaluación y el manejo de las personas sintomáticas respiratorias que buscaban la atención primaria, la experiencia con la prueba y detección precoz del COVID-19.

el monitoreo de los casos sospechosos como una estrategia de combate a la pandemia, así como el papel del enfermero activo en todos los frentes de enfrentamiento de la pandemia. **Consideraciones finales:** la enfermería desempeña un papel fundamental en la lucha contra la pandemia de COVID-19 vinculada al uso de un protocolo y a los cuidados de salud, asumiendo así, en su gran mayoría, la línea de frente de este escenario.

Palabras clave: Enfermería. Atención Primaria de la Salud. Pandemia. COVID-19. Coronavirus.

REFERENCES

- 1. Mascarenhas VHA, Caroci-Becker A, Venâncio KCMP, Baraldi NG, Durkin AC, Riesco MLG. COVID-19 and the production of knowledge regarding recommendations during pregnancy: a scoping review. Rev. Latino-Am. Enfermagem. 2020; 28:e3348. DOI: http://dx.doi.org/10.1590/1518-8345.4523.3348.
- 2.Garcia LP, Duarte E. Intervenções não farmacêuticas para o enfrentamento da epidemia de COVID-19 no Brasil. EpidemiolServ Saúde. 2020; 29(2):1-4. DOI: http://dx.doi.org/10.5123/S167949742020000200009.
- 3.Gama BMBM, Cruz CMA, França LM, Ferreira MR, Gomes SS, Godinho MR. Pandemia de COVID-19 e os cuidados de enfermagem aos pacientes em tratamento hemodialítico. Escola Anna Nery. 2020; 24: e20200413. DOI: https://doi.org/10.1590/2177-9465-EAN-2020-0413.
- 4. Almeida IM. Proteção da saúde dos trabalhadores da saúde em tempos de COVID-19 e respostas à pandemia. Revbras saúde ocup [Internet]. 2020 [cited 2020 Dec 01]; 45 (e17): 1-10. Available

 $from: http://www.scielo.br/scielo.php?script=sci_arttext\&pid=S0~303-76572020000101500\&lng=en.$

5. Sousa AR, Santos GLA, Silva RS, Carvalho ESS. Reflexões sobre o Processo de Enfermagem no trabalho de enfermeiras frente à pandemia da Covid-19. Enferm Foco. 2020; 11(1) Especial: 62-67. DOI: https://doi.org/10.21675/2357-707X.2020.v11.n1.ESP.3501

- 6. Secretaria Municipal de Saúde de Florianópolis (SMS). Gerência de Integração Assistencial. Departamento de Gestão da Clínica. PACK COVID-19: Guia para profissional de saúde da Atenção Primária. Versão 6 [Internet]. Florianópolis SC. Agosto de 2020. 1-48. Availablefrom: bit.ly/packfloripacovid19.
- 7. Cheng MP, Papenburg J, Desjardins M, Kanjikal S, Quach C, Libman M, Dittrich S, Yansouni CP. Diagnostic testing for severe acute respiratory syndrome-related coronavirus 2: a narrative review. Ann Intern Med. 2020;172(11): 726-734. DOI: 10.7326/M20-1301
- 8. Nunciaroni AT, Cunha FTS, Vargas LA, Corrêa VAF. Novo Coronavírus: (re)pensando o processo de cuidado na Atenção Primária à Saúde e a Enfermagem. Rev Bras Enferm. 2020; 73(Supl. 2):1-5. Available from: http://dx.doi.org/10.1590/0034-7167-2020-0256
- 9. Valentim, RAM, Lima TS, Cortez LR, Barros DMS, Silva RD, Paiva JC, Coutinho KD, Morais PSG, Lacerda JS, André FR. A relevância de um ecossistema tecnológico no enfrentamento à Covid-19 no Sistema Único de Saúde: o caso do Rio Grande do Norte, Brasil. Ciência & Saúde Coletiva. 2021; 26 (6): 2035-2052. DOI: https://doi.org/10.1590/1413-81232021266 44122020
- 10. Patuzzi GC, Schuster RV, Ritter, SK, Neutzling AL, Da Luz, CB, Canassa CCT. Fluxos de atendimento em um centro obstétrico frente à pandemia da covid-19: relato de experiência. CiencCuid Saúde. 2021; 20. DOI: https://doi.org/10.4025/cienccuidsaude.v20i0.56189

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