

ORIGINAL ARTICLE

REORGANIZATION OF THE WORK PROCESS IN PRIMARY HEALTH CARE IN COPING WITH COVID-19*

HIGHLIGHTS

1. The change in ambiance caused some difficulty for effectively implementing the routine.
2. Modifications in staffing provided knowledge exchange.
3. Suspension of the meeting groups caused distancing of the community.
4. Reorganization of the work process changed the care flow.

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ABSTRACT

Objective: to assess the work process of Primary Health Care professionals in coping with COVID-19. **Method:** a qualitative study that used the health work process as conceptual basis and qualitative research as methodological framework. The collection procedure was carried out with 23 health professionals from July to September 2021, in the basic health units from a municipality in northwestern Paraná, Brazil. For the analysis, the data were organized by means of the MAXQDA software, and each data segment was organized according to the meanings. **Results:** two categories emerged, namely: Difficulties faced in reorganization of the ambiance, programmatic activities and staffing of Primary Health Care professionals; and Organization of the care flow for users with COVID-19 in Primary Health Care. **Conclusion:** this study reinforces the indispensability of assessing the work process for health care improvement, especially in conditions of a public health emergency.

DESCRIPTORS: Coronavirus; Primary Health Care; Health Management; Nursing; Health Personnel.

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INTRODUCTION

Since the World Health Organization (WHO) declared a pandemic state for the COVID-19 disease caused by the SARS-COV-2 in 2020, the world has been facing a series of economic, social and health problems. In view of with that, many efforts have been deployed to cope with and control the pandemic. However, after two years of pandemic, COVID-19 remains a world public health problem¹. Data from 2022 show that Brazil has reached the milestone of more than 25 million confirmed cases and more than 600,000 deaths due to COVID-19².

Many countries adopted coping and control measures against the pandemic grounded on early diagnosis and social isolation, crucial to slow down disease transmission and reduce mortality³.

It is noted that Primary Health Care (PHC) is one of the fundamental points in the health care network, with great potential to become the main actor in mitigating COVID-19⁴. The aforementioned is due to the strengthening of the care provided to the population supported by the attributes inherent to this care level, such as access, longitudinality, integrality, care coordination and, namely, health education and family and community guidance⁵. In addition, it is worth highlighting the PHC capacity with regard to development of the following axes that are part of collective health care: health surveillance in the territories; individual care for confirmed and suspect cases; support to vulnerable groups in the territory for their social or health situation; and continuity in routine care and vaccination⁶.

It is worth recalling that the health work process is the way in which health professionals generate, either individually or in groups, the services, mediated by technologies, norms and machines, pointing out the work routine in which workers use different knowledge areas, such as handling materials and devices, applying scientific and technological knowledge, and establishing relationships with others⁷.

The object of a work process is the component on which a transforming action is performed, with the use of resources and in certain situations, regardless of being physical, biological, symbolic or subjective. Every work process has an instrument that puts the actions into practice, as well as defines the purposes and connections adequacy of the means and the conditions for transformation of the objects. In work processes in general, the activity is oftentimes fulfilled by only one individual who practices one action or a group of them. However, collective, joint or complementary activities of several individuals are constantly found; in other words, teamwork⁸.

In view of this situation, the question is as follows: How did reorganization of the work process of Primary Health Care professionals take place in the face of COVID-19? Thus, the objective of this research was to assess the work process of the Primary Health Care professionals while coping with COVID-19.

METHOD

This is a qualitative approach study, linked to the following MSc thesis: "Reorganization of the work process of Primary Health Care professionals in the face of COVID-19". In this sense, the health work process was used as conceptual basis¹⁰, and, as methodological framework, qualitative research¹¹, which discusses human relationships for the fulfillment of institutional processes, taking into account the subject's perception when pursuing results¹².

COREQ was used as a guide, which is an instrument conceived to guide authors into

developing research studies, following recommended criteria and enhancing qualitative research, improving reliability and the value of the published research literature¹³.

The study took place in a city from northwestern Paraná, which belongs to the 15th State Health Region. This city has 34 Basic Health Units (BHUs), of which five were selected for being Emergency Care Units (*Unidades de Pronto Atendimento*, UPAs) during the initial reorganization phase of the health services to face the COVID-19 pandemic. The users of these BHUs were referred to other units closer to their coverage area.

Initially, the aforementioned five units were considered to be included as the collection field for the data of this study. However, collection was authorized by the Municipal Health Department only in four of them.

The search for patients took place in the four BHUs indicated by the Municipal Health Department. The initial contact was with each BHU management area, after which the interviews with the professionals were initiated. The following inclusion criteria were adopted to select the sample: being an active BHU health professional for at least six months during restructuring of the work process to face COVID-19 in 2020. The exclusion criterion corresponded to professionals who were on vacation or leave during the collection period.

The research was conducted with health professionals from the following categories: nurses, physicians, nursing technicians, community health agents and dentists, who worked in the BHUs selected for the study at the beginning of the COVID-19 pandemic, considering, at least, one professional from each category in each unit and respecting the theoretical saturation principles; in other words, data collection is interrupted when it is verified that new elements to support the theorization desired (or possible in those circumstances) are no longer necessary from the observation field¹⁴.

Data collection took place between July and September 2021, by means of open interviews previously scheduled and concluded in the BHU where each participant worked. All interviews were carried out by the researcher herself and recorded in a digital audio device upon the interviewees' consent. Subsequently, the recordings were transcribed in full and the data were coded with the aid of the MAXQDA 2021 software, license No. 245,400,626.

In the analysis, data organization was done by means of the MAXQDA software, each data segment was organized and divided into codes that expressed the meanings in the interviewees' statements, after being grouped into categories and subcategories, until the research objective was met.

The first coding stage allowed for a rigorous evaluation of the interviewees' statements, conceptualizing their ideas through the creation of codes. In the second stage, the codes were reunited and organized based on their similarity, originating two categories: Difficulties faced in reorganization of the ambience, programmatic activities and staffing of Primary Health Care professionals; and Organization of the care flow for users with COVID-19 in Primary Health Care.

As support and parameter to examine the pandemic context, the protocol applied was the one for health professionals and services on care – COVID-19, of the Ministry of Health¹⁵.

The study respected all ethical aspects recommended by Resolutions 466/12 and 510/16 of the National Health Council¹⁶⁻¹⁷ and was approved by the Permanent Committee on Ethics in Research involving Human Beings (*Comitê Permanente de Ética em Pesquisa Envolvendo Seres Humanos*, COPEP) of the State University of Maringá (Opinion No. 4,127,712/2020).

RESULTS

The study participants were 23 health professionals and their individualized characterization is shown in Chart 1.

Chart 1 – Characterization of the participants according to age, gender, marital status, working time, time working in the unit and profession. Maringá-Paraná, 2022

ID	Age	Gender	Marital status	Time working in the profession	Time working in the unit	Profession
1	54	F	Married	20 years	20 years	CHA
2	29	F	Single	6 years	6 years	CHA
3	39	F	Married	15 years	15 years	CHA
4	44	F	Single	20 years	20 years	CHA
5	28	F	Single	5 years	5 years	CHA
6	32	M	Married	5 years	2 years and 6 months	Dentist
7	52	F	Married	28 years	12 years	Dentist
8	54	F	Single	30 years	15 years	Dentist
9	30	F	Single	6 years	2 years	Dentist
10	58	F	Married	34 years	16 years	Dentist
11	44	M	Married	20 years	14 years	Nurse
12	45	F	Single	21 years	16 years	Nurse
13	28	F	Single	4 years	2 years	Nurse
14	49	F	Single	25 years	15 years	Nurse
15	34	M	Single	10 years	2 years	Physician
16	27	F	Single	3 years	1 year	Physician
17	30	F	Married	6 years	2 years	Physician
18	61	F	Married	37 years	18 years	Physician
19	42	F	Married	18 years	4 years	Nursing Technician
20	53	F	Single	29 years	10 years	Nursing Technician
21	32	F	Single	8 years	1 year	Nursing Technician
22	45	F	Single	21 years	4 years	Nursing Technician
23	46	F	Single	22 years	3 years	Nursing Technician

Source: The authors (2022).

From the qualitative data analysis, the categories were presented as shown below.

Difficulties faced in reorganization of the ambience, programmatic activities and staffing of Primary Health Care professionals

The participants reported changes in the ambience, programmatic activities and staffing due to COVID-19, as there was the need to transform some BHUs into emergency care units (UPAs), resulting in several changes in the development of the everyday activities. These changes were not individual, considering that they involved the entire community.

It was a very fast change, overnight. Our BHU worked as a Family Health Program (FHP) and other Primary Health Care teams went to the UPA, I was at the UPA for two months and then I went to another primary care unit again. Then it was a very abrupt change, it took the team, the people and the community that is cared for here by surprise. Here we had some difficulty, it lasts until today because our physical area was totally disorganized, we couldn't find our materials, our rooms, in short, everything was disorganized. We had to start cleaning and organizing, and not everything has returned to its proper place until today. (P14 – Nurse)

At the beginning, this place became a UPA, it stopped being a primary care unit to become an emergency unit and we were reallocated to another BHU after a few months. (P5 – Community Health Agent)

The modifications that took place in staffing were significant for the participants of this study regarding the knowledge exchange between them. However, there were also negative points due to the difficulties adapting to the new health units to which they were reallocated.

We used to do the card schedule, we would visit but not enter the house, we stayed at the entrance gate to check on the user if they needed a prescription, we took note of everything that the community needed, talked to the doctor that was available to prescribe, with the prescription at hand, we would take them to the patients. (P5 – Community Health Agent)

We went out to help places that most needed it, some needed to take a night shift at the UPA in the COVID-19 notification area. (P11 – Nurse)

In the participants' reports, it was noticed that many changes were implemented in the BHU programmatic activities, which reflected in difficulties to perform the previously instituted routine. It is emphasized that, given this process, the professionals faced problems to adapt to, according to the reports.

There was nothing planned, every day any patient that came here was cared for. There was no schedule, which is what we do here at the BHU. So this period was free-demand service, chronic patients who came seeking a prescription for a medication that they were already using, some mild cases, such as hypertension or a symptomatic condition. At the beginning, even our workload was reduced to thirty hours a week, we used to work forty hours a week at the Family Health Program. We no longer made home visits, which are our flagship, we stopped making visits in order to avoid spreading the problem. (P15 – Physician)

We treated many more patients, now after the pandemic, our shifts were reduced by fifty percent because there needs to be more spacer between one patient and another, the devices need to be cleaned, the temperature measured and the patients have to do a mouthwash. Given all that logistics, the appointments lasted longer. So our agenda became shorter. I wear a cloth coat, I wear this disposable, N95 mask for the appointments and then I use the surgical mask over, and the Face Shield too. Screens were placed to separate because before the clinic used to be open here. We also treat patients with air conditioning but the windows are open for ventilation. (P10 – Dentist)

The suspension of meeting groups with the users was shocking for the participants, because of the community distancing and the requirement of work reorganization, so that the active search and scheduling of appointments became necessary for care continuity.

The diabetic and hypertension groups are not active. [...]. When the doctor needs them to attend an appointment, undergo reevaluation, and order tests, she leaves a message and I call them to reschedule because the groups are not active. We only go to bedridden individuals' houses because they can't come over here. With the pandemic, we reduced the working time, and we only went to the home of the patients who requested the visits. We would go on one or two visits on our visiting day. (P21 – Nursing Technician)

We stopped all our programs, team meetings were also left aside, actually, we set up only one outpatient ward with a reduced service because the patients were told not to come to the unit and we only gave prescriptions. At the groups' time that used to be in the afternoons, I only make prescriptions and the patients don't even come to the unit sometimes, they call and say that they're running out of some controlled medication they use and we give them a prescription through the CHA. (P18 – Physician)

Organization of the care flow for users with COVID-19 in Primary Health Care

Other changes that were implemented to reorganize the work process concerned the care flow for users given the COVID-19 pandemic, having many transformations in health care as effects.

Suspected individuals already have the guidance to look for the UPA responsible for COVID-19. We also have an isolation room where the individual will be cared for if they come here with symptoms. Depending on the situation, if the individual has flu symptoms, tests negative but is in an indisposition situation or is coughing, we end up rescheduling to a time that they are better. But when the individual tests positive for COVID-19 and is in pain, with edema, and bleeding, we save the last appointment for this person. (P10 – Dentist)

Firstly, he (the user) gives his name at the reception and the receptionist asks him why he needs care, asks for any respiratory symptoms and he says the reason. If the receptionist has doubts, they end up asking some nurses or us, or even referring this patient to the welcoming room. In the welcoming room, the nurse will ask some more questions, if she thinks there is any respiratory symptom, she will guide the patient and ask them to go to the UPA which is the reference for COVID-19. (P16 – Physician)

It can be seen that the participants mentioned that there was a change in the care locus when the users had respiratory symptoms but that, if they needed immediate care, they were referred to isolation for first aid until the SAMU arrived.

DISCUSSION

In view of the results of this study, it is evident that the reorganization of the work processes of Brazilian health professionals who worked at Primary Health Care units in northwestern Paraná during the COVID-19 pandemic ended up in many changes with regard to continuity of the health care activities.

Regarding reorganization of the ambiance to assist in the care of flu cases, some BHUs were converted to UPAs. Many professionals reported that it was an abrupt change and that they had to organize the physical space for a new work demand. The creation of screening for respiratory symptomatic individuals and exclusive offices for them was cited

among the changes that took place in this period, which corroborates an essay published in Rio de Janeiro²⁰ that highlighted the indispensability of adequacy of physical structure for users with flu symptoms.

As for the physical space, in addition to the creation of specific rooms for managing the diagnosis of influenza syndrome and COVID-19 suspected cases, a duly equipped space was also reserved for treating the users. Home isolation was recommended for mild cases and, for severe ones, stabilization and referral to urgency/emergency or hospital services, in addition to immediate notification and clinical monitoring¹⁵.

It is worth remembering that, in addition to assisting in the care of users and preventing overcrowding in the tertiary level, this adaptation of the physical space also required that health professionals enhanced their urgency and emergency knowledge to contribute to the care provided to the users.

Faced with this scenario, the programmatic activities were also impaired; the professionals reported that care became free-demand, that the home visits were suspended to avoid spread of the virus and that the focus was to only treat urgent cases, in addition to the fact that the appointments for childcare, prenatal care and Hiperdia were reduced to meet the spontaneous demand due to flu cases.

To avoid crowding, at first, group activities were suspended in order to avoid contact among users, resulting in a loss in the routine follow-up of users with chronic diseases, groups of smokers, pregnant women, adolescents and older adults. The same happened in a similar study²², where the meetings with users were suspended to prevent crowding and for fear of increasing the demand of individuals with respiratory complaints.

As for staffing, it was necessary to reallocate some primary care professionals to assist other health units in the COVID-19 notifications. In addition to that, with the increase in secondary-level care, an adjustment to the current work requirements was necessary; hence the reduction in the number of professionals working at basic health units and their increase in the UPAs to care for urgencies and emergencies. That is similar to what was found in a study²⁰, where it was necessary to adjust the number of professionals due to work overload.

In relation to the "Organization of the care flow for users with COVID-19 in PHC" category, the professionals referred users with mild flu symptoms to the reference UPA. On the other hand, for individuals that tested positive for COVID-19 and required routine care, the last service time would be reserved in an isolation room. In urgent cases, the users were first cared for at the BHU until the Mobile Emergency Care Service (*Serviço de Atendimento Móvel de Urgência, SAMU*) arrived at the unit for the due transfer.

Due to the referral of individuals with flu symptoms and COVID-19 diagnosis to the UPAs, the programmatic activities returned to PHC. A similar fact was investigated in a study coordinated in PHC, where, in order to confer continuity to the activities of prenatal, puerperal, childcare, older adults' and men's and women's health groups during the pandemic, it was first necessary to organize the flu demands and those of users with a COVID-19 diagnosis²¹.

In this sense, the routine activities should be preserved by readjusting of procedures with the aid of communication and information technologies, so that there is no interruption in the care provided to the users⁴. In turn, for other authors²³, Telehealth can assist health professionals in the service provided to the users during the pandemic, which is equally evidenced in this study, as the professionals used the telephone to call them and reschedule individual appointments.

Thus, given the above, it is perceived that the evaluation of the work process reorganization of Primary Health Care professionals in PHC when faced with COVID-19 exposed many modifications in the health care practice during the pandemic.

Nevertheless, the fact that the research only encompasses the personal/subjective perception of professionals working in some BHUs was a study limitation; in other words, there may be differences in the impressions of other health professionals.

CONCLUSION

Given the above, the impact imposed by COVID-19 on continuity of the work processes of health professionals working in PHC becomes evident. Thus, reorganization of their work was essential for users and workers to feel the effects of the pandemic mildly.

It is noted that there were changes in the BHU ambiance, staffing and programmatic activities, causing difficulties for the effective implementation of the routine previously instituted in the scenario under study. These transformations exerted a direct influence on care organization in the health context; therefore, part of the activities developed in PHC were suspended during the pandemic and had to be rearranged, given the increase in the care of respiratory symptomatic individuals.

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Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - **Arnaldo JGS, Radovanovic CAT, Magnabosco GT**; Drafting the work or revising it critically for important intellectual content - **Arnaldo JGS, Radovanovic CAT, Magnabosco GT, Salci MA, Galdino MJQ, Martins MA, Zulin A**; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - **Arnaldo JGS, Radovanovic CAT, Magnabosco GT**. All authors approved the final version of the text.

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