

PERFORMANCE OF MULTIPROFESSIONAL HEALTH RESIDENTS IN PRIMARY CARE DURING THE COVID-19 PANDEMIC

DESEMPEÑO DE LOS RESIDENTES MULTIPROFESIONALES DE LA SALUD EN ATENCIÓN PRIMARIA DURANTE LA PANDEMIA COVID-19

ATUAÇÃO DOS RESIDENTES MULTIPROFISSIONAIS EM SAÚDE NOS CUIDADOS PRIMÁRIOS DURANTE A PANDEMIA DA COVID-19

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Submission: 09-04-2025

Approval: 05-07-2025

ABSTRACT

The objective was to analyze how multidisciplinary residents were included in providing care in Primary Health Care (PHC) during the COVID-19 pandemic, considering in-service training. This is qualitative research, with data collection through an online focus group, from November to December 2020, with 11 first-year (R1) and six second-year (R2) residents of both sexes from the Programs of Integrated Multiprofessional Residency, in the areas of concentration of Public Health and Mental Health. The collected material was subjected to analysis using the Collective Subject Discourse (CSD). The reorganization of work processes in the municipality's PHC was a major challenge for managers and teams during the pandemic. From the residents' perspective, this entire restructuring movement greatly interfered with the form of care provided to users, in addition to deconstructing the expectations created in relation to their training. It is concluded that the experiences lived by the residents enabled these professionals, still in the training process, to carry out important individual and collective reflection, contributing to a proactive positioning in the face of situations such as those caused by the pandemic.

Keywords: COVID-19; Primary Health Care; Integrality in Health.

RESUMEN

El objetivo fue analizar cómo los residentes multidisciplinarios fueron incluidos en la prestación de cuidados en la Atención Primaria de Salud (APS) durante la pandemia de COVID-19, considerando la formación en servicio. Se trata de una investigación cualitativa, con recolección de datos a través de un grupo focal en línea, de noviembre a diciembre de 2020, con 11 residentes de primer año (R1) y seis de segundo año (R2), de ambos sexos, de los Programas de Residencia Multiprofesional Integrada, en el áreas de concentración de Salud Pública y Salud Mental. El material recolectado fue sometido a análisis mediante el Discurso del Sujeto Colectivo (CSD). La reorganización de los procesos de trabajo en la APS del municipio fue un gran desafío para los directivos y equipos durante la pandemia. Desde la perspectiva de los residentes, todo este movimiento de reestructuración interfirió enormemente en la forma de atención brindada a los usuarios, además de deconstruir las expectativas creadas en relación a su formación. Se concluye que las experiencias vividas por los residentes permitieron a estos profesionales, aún en proceso de formación, realizar importante reflexión individual y colectiva, contribuyendo para un posicionamiento proactivo ante situaciones como las provocadas por la pandemia.

Palabras clave: COVID-19; Atención Primaria de Salud; Integralidad en Salud.

RESUMO

Objetivou-se analisar como ocorreu a inserção dos residentes multiprofissionais na realização do cuidado na Atenção Primária à Saúde (APS), durante a pandemia COVID-19, considerando a formação em serviço. Trata-se de pesquisa qualitativa, com coleta de dados por meio de grupo focal *online*, no período de novembro a dezembro de 2020, com 11 residentes do primeiro ano (R1) e 6 do segundo ano (R2), de ambos os sexos, dos Programas de Residência Integrada Multiprofissional, nas áreas de concentração de Saúde Coletiva e Saúde Mental. O material coletado foi submetido à análise por meio do Discurso do Sujeito Coletivo (DSC). A reorganização dos processos de trabalho na APS do município foi um grande desafio aos gestores e às equipes, durante a pandemia. Na perspectiva dos residentes, todo esse movimento de reestruturação interferiu muito na forma de cuidado prestada aos usuários, além de desconstruir as expectativas criadas com relação à formação desses futuros profissionais. Conclui-se que as experiências vivenciadas pelos residentes lhes possibilitaram uma importante reflexão individual e coletiva, contribuindo para um posicionamento proativo diante de situações como as ocasionadas pela pandemia.

Palavras-chave: COVID-19; Atenção Primária à Saúde; Integralidade em Saúde.



INTRODUCTION

In March 2020, the World Health Organization (WHO) declared COVID-19 a pandemic ⁽¹⁻²⁾. This highly transmissible and pathogenic viral infectious disease is caused by the novel Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV-2). It started in Wuhan, China, in 2019 and spread to all continents in just two months ⁽³⁻⁴⁾.

The difficulty in containing the novel coronavirus, combined with its rapid spread in dozens of countries and the disease severity, highlighted the need for global action, from governments in the richest to the least developed countries, triggering a global health crisis with significant economic, financial, political, social, and humanitarian resistance impacts ⁽⁵⁾.

This situation required rapid responses involving individual and collective protective measures, the adoption of new health and behavioral habits, and timely treatment for more severe cases to avoid overwhelming hospital bed capacity and other health supplies in the face of the rapid increase in cases ⁽⁶⁾.

Thus, given the complexity imposed by the pandemic, public services in Brazil and the Unified Health System (SUS – *Sistema Único de Saúde* – considered one of the most complex public health systems in the world, encompassing multiple levels of health care ⁽³⁾) were forced to reorganize themselves to address changes in health care practices and meet the population demands ⁽⁴⁻⁵⁾.

Primary Health Care (PHC), by assuming the coordination of care for families and, ideally, serving as the gateway to the SUS, became indispensable due to the characteristics of teamwork, based on an established territory and the profile of community needs ^(5,3,7). PHC played an important role in preventing the risks of the COVID-19 virus transmission and in preserving the lives of individuals with comorbidities who developed the severe form of the disease, requiring care in Intensive Care Units (ICUs) ⁽⁴⁾.

PHC presented itself as a potentially effective and efficient space to respond to the health crisis generated by COVID-19. However, the role played by PHC during the pandemic was shrouded in contradictions, at least in Brazil, with unclear guidelines regarding its organization and responsibilities. In the absence of clear guidelines from the federal government, states and municipalities expanded their autonomy, implementing various local organizational arrangements and strategies, which varied in terms of user and worker participation and integration with other responsibilities at this level of care ⁽⁷⁻⁸⁾.

In this aspect of PHC reorganization during the pandemic, the role of professionals in training stands out, especially in professional residency programs, which were affected, since the essence of training is integration into the world of work. Opportunities for clinical experience in medical residencies decreased, considering the reduction in both outpatient and



inpatient care for non-COVID-19 cases, hindering educational processes ⁽⁹⁾.

Significant changes were observed in the organizational model and operating regime of health services and teams, resulting in increased workload and precarious care conditions, increased responsibilities, and altered work hours. Furthermore, it was observed that work during the pandemic generated emotional consequences for professionals due to the uncertainties of the moment and fear of contamination, showing a threat to the mental health of the workforce ⁽¹⁰⁾.

Despite the obstacles, residents played a significant role for the services and the community through active participation in the planning and implementation of health actions ⁽¹¹⁻¹²⁾. Units were reorganized to address COVID-19, with care flows being redirected, healthcare professionals reallocated, and operating hours changed ⁽¹³⁻¹⁴⁾.

Therefore, based on the theoretical explanation, the following study question was developed: How did residents' involvement and performance in primary health care services occur during COVID-19?

Thus, the objective is to analyze how multidisciplinary residents were involved in providing care in PHC during the COVID-19 pandemic, considering in-service training.

METHOD

STUDY TYPE

This exploratory research, with a qualitative approach, aims to understand the actions developed by professionals in the Integrated Multiprofessional Residency Program (RIMS) in Public Health and Mental Health, in a city in the Midwest region of the state of São Paulo, Brazil. It is linked to the research project of the Master's Program in "Health and Aging" entitled "The Role of Multiprofessional Health Residents in the COVID-19 Pandemic: Care and Training." This article will present an analysis of data on the inclusion and performance of residents in primary health care services during the COVID-19 pandemic.

The study followed the list of criteria included in the Consolidated Criteria for Reporting Qualitative Research (COREQ), which guides qualitative research ⁽¹⁵⁾.

THEORETICAL-METHODOLOGICAL FRAMEWORK

The research is based on the Theory of Social Representations (TSR), which is present in people's opinions, judgments, evaluations, positions, manifestations, or attitudes, and represented by collective ways of thinking of groups, professional categories, students, and users of a health service. It is a scientific theory about the processes through which individuals in social interaction construct explanations about social objects ⁽¹⁶⁾.



RESEARCH SETTING

Residency programs are involved in the proposal for quality training, in which the diversity of practice settings fosters training in the health field within the SUS ⁽¹⁷⁾.

With the new scenario imposed by the pandemic, residents of the Public Health and Mental Health departments of a higher education institution in the Midwest region of the state of São Paulo, who were previously involved in primary and secondary care services in a medium-sized municipality, were reassigned to other practice settings in early 2020.

However, the Municipal Health Secretariat (SMS) of the municipality under study reorganized the units, designated as symptomatic and mixed, to treat users with respiratory symptoms, and asymptomatic and monitored ⁽¹⁸⁾.

DATA SOURCE

The research data reflect in-person experience, observations, and discussions among residents in a variety of settings, both in primary and secondary care.

Purposive sampling was employed, using the following inclusion criteria: being a resident admitted in 2019 and 2020 to the two RIMS programs: Public Health and Mental Health, that is, second-year residents (R2) and first-year residents (R1), respectively; and having at least six months of experience in the teaching-learning and work methodology. The exclusion criterion was being on leave from their activities for

medical reasons or vacation. All residents who met the established criteria were invited to participate in the study: 6 R1 and 6 R2 residents from the Public Health area; and 8 R1 and 8 R2 residents from the Mental Health area, who agreed to participate, totaling 11 R1 and 6 R2 residents. Six nurses, three psychologists, one pharmacist, three social workers, two physical therapists, and two occupational therapists participated.

DATA COLLECTION

The participants were divided into three groups: two R1 groups consisting of six residents from RIMS Public Health (G1) and five from RIMS Mental Health (G2), who joined in 2020; and another R2 group consisting of three residents from RIMS Public Health and three from Mental Health (G3), who joined in 2019. Data collection took place from November to December 2020.

Initially, the researcher contacted the RIMS Program Coordinators, explaining the purpose of the research and requesting the participants' contact details.

After contacting them, R1 and R2 participants were invited via a messaging app to agree on dates and times common to all. The residents were sent an invitation letter explaining the objectives, meeting duration, and research design, as well as an online Informed Consent Form (ICF) via Google Forms. After confirmation, the date and time of the data collection meeting were scheduled.



The research data were collected through the online focus group (FG) technique ⁽¹⁹⁾ and the Google Meet digital platform, adhering to the pandemic health measures and, most importantly, through the use of social distancing as a way to reduce the risk of contact and transmission of the virus.

Therefore, the online FG meetings lasted an average of one and a half hours, and the group dynamics were led by a lead researcher, initially accompanied by another researcher with experience in focus group data collection, as well as an observer.

A pilot study was conducted with residents from another program at the same institution. Analysis of the activity with the experienced focus group researcher revealed the need for adjustments to the data collection instrument, considering the objectivity of the questions and the fact that it would be an online activity. It was necessary to monitor the participants' response times and understanding of the questions.

To conduct the online FG, a guiding script for data collection was developed with three phases: (a) participant introductions, with a brief explanation of the research proposal, clarification of any questions, and confirmation of submission of the online informed consent form; (b) triggering questions focusing on the residents' perspectives on the issue of practice and training in the context of the pandemic; (c) concluding with an opportunity for any final comments that might have been previously

omitted. The study concluded by thanking the participants.

The research arose from several questions: 1. How do you provide patient/group care during this pandemic? Example(s). 2. Has there been any change in the way care is provided? 3. What is the reason? Example(s). Was there any interference from the pandemic context? Example(s).

DATA ANALYSIS

The data obtained in the study were analyzed using the Collective Subject Discourse (CSD) technique ⁽¹⁶⁾. Therefore, the statements of R1 and R2 were transcribed, and the CSD was developed separately based on key expressions (KE) and central ideas (CI). The KE were grouped using the CI of R1 and R2, allowing us to understand, from the residents' perspective, how the process of insertion and performance in the provision of care in primary health care services occurred in the context of COVID-19.

Thus, the CI with similar meanings and their respective KE were identified and grouped, constructing the CSD by maintaining the participants' own words, connectives, removing specificities, and developing one or more summary statements.

ETHICAL ASPECTS

The research was approved by the Human Research Ethics Committee of the educational institution involved, under Opinion N.



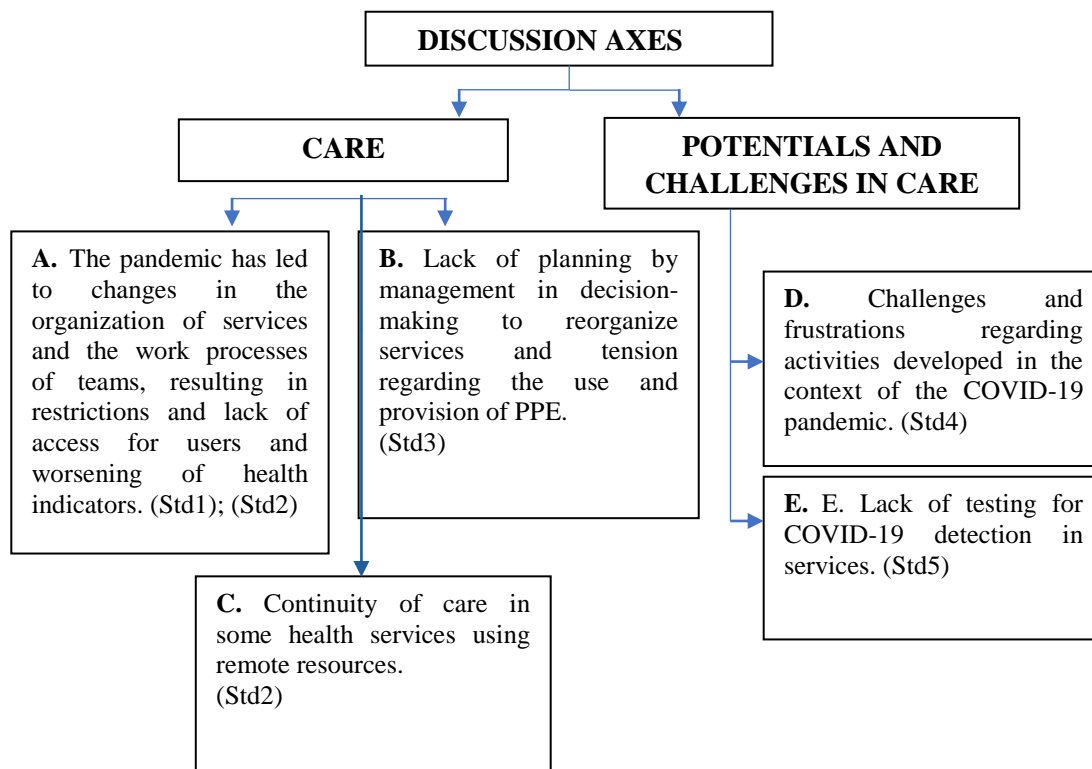
5.685.196/2022, in accordance with the National Health Council Resolution.

RESULTS AND DISCUSSION

Based on the development of the CSD and their analysis, two axes of discussion

emerged: the first addresses the care provided by residents in health services during the pandemic; the second refers to the potential and challenges in care faced by residents in the pandemic context, as demonstrated in Figure 1.

Figure 1 - Discussion axes, according to the development of care for 1st and 2nd-year residents, 2022.



Source: Research data.

AXIS 1: CARE

In Brazil, with the declaration of a Public Health Emergency of National Concern due to human infection by the novel Coronavirus⁽²⁰⁻²¹⁾ in March 2020, the entire care network was reorganized to guide the flow and control the virus transmission. It was necessary to replan and implement health promotion and disease prevention actions aimed at fighting the Coronavirus without neglecting SUS users.

Based on these frameworks, health services, professionals, and residents needed to restructure and adapt to the new reality imposed by the pandemic. Therefore, there were many implications for the entire PHC work process, such as: the need to reorganize schedules and care routines; and the suspension of some activities to avoid crowds and protect those at higher risk.

The Municipal Health Secretariat (SMS) reorganized health services as follows: asymptomatic units, symptomatic units, mixed units (treating both symptomatic and asymptomatic patients), and monitoring units. The asymptomatic units did not provide care for those with flu-like symptoms and were responsible for all other needs. In the symptomatic units, care was directed only to people with flu-like symptoms. Monitoring units monitored individuals and families by phone but did not provide any in-person care ⁽¹⁸⁾.

With the pandemic, some things changed in the health unit network; they were all reorganized. There were COVID centers, centers for asymptomatic patients, and also monitoring centers. Other services and many exams, many appointments, were canceled. There were no Pap smears, prenatal and childcare services were only available for at-risk groups, and only doctors could see patients. (Std1).

Nine changes were made to the characteristics of these units to care for the population in the territories under their responsibility in 2020. In 2021, there were 12 changes, according to criteria defined by the Marília Health Secretariat (SMS) during the COVID-19 pandemic ⁽¹⁸⁾.

Many clinical exams and appointments ended up being canceled, in addition to the suspension of collective activities (groups) and other services, with only specific medical appointments remaining. This had a direct impact on patient care, as all healthcare was focused on COVID-19 needs.

[...] So, I think care was very limited in this sense. This part of the life cycle, from the entire development of babies to the elderly, was no longer provided. Everything came to a standstill, with the focus shifted away from other health issues and focused solely on COVID. (Std1).

Are we looking at COVID and care in general? And another patient is dying of "sepsis" [...]. (Std1).

Some of the detrimental effects of care, identified as factors that impacted and worsened health indicators, include: discontinued treatment for chronic conditions, which can result in an increase in the number of deaths in this group of diseases; interruption of continuous medication use; failure to perform routine clinical examinations; and decreased vaccination coverage among children ⁽²²⁾.

Another important factor related to the network reorganization was the division of territories. Many health units experienced a very high volume of patients, and health professionals were reassigned to unsuitable physical spaces. Similar narratives can be identified in the accounts of residents R1 and R2. [...]

So, the territory ended up becoming very large, and in addition to the volume of care, the number of professionals increased significantly. We had, and still have, enormous difficulty in accommodating all these professionals within a physical structure that couldn't accommodate that number of professionals. (Std1).

[...] In the most peripheral regions, for example, the health center that was for symptomatic

patients was much further away than it used to be [...]. (Std2).

The SMS reorganized the network by sending the new distribution map of units and professionals to the services. This generated a series of negative impacts, both on patient care and on healthcare teams in general. For patients, the losses were primarily the loss of referral services and difficulties with transportation due to the reduction in the number of public transportation lines available in the city. Furthermore, the population began to experience limited access to services caused by fear of leaving home due to social distancing.

Patients also felt lost, because they would arrive at their referral services, their referral unit, and then be turned away at the door and have to relocate to another unit, with another team they didn't have a connection with, with another team they didn't know, often in a unit very far from their home, far from their territory. So patients also felt lost in this process [...]. (Std1).

The issue of public transportation, which was closed for a period of time, ended up making patient access very difficult with this reorganization [...]. (Std2).

It's worth noting that the care network scenario was already complex and challenging before the start of 2020, especially for healthcare services that needed to quickly adapt to new demands. In this regard, the care process was completely altered, with the need to redirect workflows, cancel exams, dismantle teams, suspend group sessions, and change unit hours. As a result, care was weakened, as efforts

focused on meeting the demands of COVID-19 situations, altering the continuous flow of care for other health problems that were monitored and treated in the services.

One of the justifications for these losses, discussed in this research within the care context, was the lack of planning on the part of the municipal administration, which failed to consider the municipality's own indicators or the recommendations of the Ministry of Health. The reorganization involved dividing units without assessing the territories and the contributions of the teams working there. These teams, having greater proximity to the community's reality, were better able to understand the needs of that location. The logic established by municipal managers led to the centralization of COVID-19 care in satellite units, hindering public access.

It was observed that one of the greatest management challenges was the constant need for replanning and decision-making, involving multiple actors in a scenario of uncertainty and inadequacy. At the same time, it is recognized that the system was unprepared to face the pandemic, further aggravated by the Ministry of Health's weak performance, marked by alternating ministers and contradictions regarding globally recognized scientific measures ⁽²³⁾. On the other hand, regarding working conditions, both professionals and residents reported that, during the pandemic, they had little or delayed access to SARS-CoV-2 testing ⁽²⁴⁻²⁵⁾.



reorganization of their work process. (Std3).

Another important change was the introduction of new technologies, such as telemonitoring of patients treated at the units, to monitor signs of worsening and better guide the population. Despite the reduction in staff due to illness or the fact that they belonged to a risk group, a new workflow strategy emerged, and many people were strengthened by these calls (26).

Due to this workflow reorganization, with the suspension of group activities and the relocation of spaces for in-person care for patients, it was necessary to adopt certain measures, such as restrictions and limitations on access and the use of PPE and hand sanitizer. Initially, there was much uncertainty about the types of protective equipment, how and when to use them, what to do with the materials after use, and what the organizational workflow of health units should be to avoid the risk of transmission and contamination by the virus.

One of the challenges was the limited number of PPE available to meet the protective needs of people with respiratory symptoms, requiring a reorganization to address this limitation to the detriment of the needs emerging from the health territories.

I saw a very serious issue with PPE. There was a dispute over who was responsible for the PPE and its supply. This created a lot of tension within the team and within the service, as it's a home care service. How are we supposed to conduct visits without PPE? How are we supposed to remove this PPE without contaminating ourselves or the car? So, it was a complete

Residents also experienced this context, where PPE shortages, misinformation about proper donning and doffing techniques, the lack of updated information, longer shifts, and increased workloads can be identified as possible factors contributing to emotional overload and increased contamination among healthcare professionals (27-28).

AXIS 2: POTENTIALS AND CHALLENGES IN CARE

When faced with changes resulting from the onset of the pandemic (2020), residents experienced frustrations regarding their expectations and related to the construction of their own learning, considering the uncertainties and conflicts in professional practice settings. Before the pandemic, residents had high expectations and desires for professional experience upon entering the programs and saw RIMS as a way to acquire it. In other words, there was no opportunity to build the capacity to act in the face of uncertainty and instability, which led to the disruption of initial plans, especially those of R1. In addition, they also needed support and mediation from preceptors and program coordinators.

Due to the pandemic, many scenarios were lost within the program. I was going to work in other spaces but didn't because of the pandemic and the difficulty of negotiation, especially because there's a real risk of contamination

depending on the location [...].” (Std4)

[...] Some things changed, and we had to adapt. Everyone was lost, very confused about both the service and our involvement—at least that was my experience [...]. (Std4).

I felt very frustrated in this same movement of not doing what I wanted to be doing, which was working in mental health. It's a frustration that caused me even more anguish [...]. (Std4).

This entire context of care led residents to experience their own in-service training under the changing conditions of the first year of the COVID-19 pandemic. Training opportunities were thus impacted by the conditions under which municipalities and training institutions were able to reorganize care, drawing on their experiences in the face of the posed potential and challenges.

While Multiprofessional Health Residency (RMS, *Residência Multiprofissional em Saúde*) programs aim to improve the training process for healthcare professionals, such programs pose a challenge to managers and educators due to the complexity of simultaneously fostering professional, interpersonal, and humanistic skills⁽²⁹⁻³⁰⁾.

The lack of tests for detecting the coronavirus hindered the tracking of potential infections, hindering intervention and treatment measures. At that time, only people with severe acute illness were tested, and it is known that 80% of the population who contracted the virus

would have mild symptoms, without progressing to lung infection.

When the pandemic began, we realized that there was very little preparation and no testing. Some people in our department were infected, and we were very afraid that we might be infected and infect other patients. These tests were never performed on us. (Std5).

This meant, for example, that without mass testing, it was impossible to know the true extent of the pandemic, working with underreporting⁽²⁸⁾.

This was one of the situations that mobilized residents regarding protection and the possibility of contamination by the virus, considering that, at this time, they were not seen as part of the team working to care for patients, even though they were not directly dealing with people with COVID-19, but had the potential to come into contact with the virus, generating fear about their continued presence in practice settings.

There should also be a little more care in terms of testing residents, having something in this regard, having a larger apparatus, if the resident becomes ill and has the right to leave. (Std5).

Finally, the topics discussed here lead to a deep reflection on the context experienced by residents and their respective accounts of their experiences during the first years of the pandemic, highlighting the extent to which the healthcare system and its management, across its various guidelines and levels, remain fragile when faced with events of this magnitude, such

as the COVID-19 pandemic, including decision-making and in-service training.

COVID-19 has revealed the enormous vulnerabilities of healthcare systems, such as the lack of comprehensive, intersectoral protocols and the need for national pandemic preparedness plans, triggering a massive health, economic, educational, and social crisis across the country. This pandemic period has exposed inequalities, and the impacts have been even worse for the already vulnerable population.

FINAL CONSIDERATIONS

It can be considered that, with the outbreak of the pandemic, healthcare services faced numerous challenges and obstacles due to the complexities this period brought. Changes and reorganization across the entire care network were necessary, exposing existing problems and weaknesses in services.

This research focused on the year 2020 and identified the following in its context: the lack of effective public policies; the lack of investment in the healthcare sector; the federal government's denialism, which included questioning the seriousness of viral transmission; the delay in responding to health demands; and the absence of a national vaccination plan, contributing to the pandemic reaching catastrophic proportions in Brazil, which reached record numbers of deaths and COVID-19 cases.

PHC played a fundamental role in addressing the resulting demands, reorganizing care flows, expanding, and improving access to

healthcare services. However, at the beginning of the pandemic, many challenges were identified, and in some cases, they were poorly addressed, despite the extensive care network.

The proposed reorganization of work processes in the PHC unit of the municipality where the investigation was conducted posed a significant challenge for managers and teams during the pandemic. From the perspective of residents working in these services throughout this period, this restructuring process significantly impacted the care provided to patients, in addition to shattering expectations regarding their training. It was necessary to address the challenges that arose and, together with the service, rebuild the viability of training in the practical setting.

Therefore, all these experiences enabled residents, still in the training process, to engage in important individual and collective reflection on the situation experienced in 2020, contributing to a proactive stance in the face of fear and uncertainty, such as those caused by a pandemic of this magnitude.

As a limitation of this research, we identified that data collection was conducted with residents of a single municipality, necessitating the expansion of this research to other RMS training institutions.

We hope that this research will spark reflections on the importance of RMS professional training in the PHC context. Future research addressing the pandemic context under this research proposal is essential, from the

perspective of tutors, preceptors, and managers in various contexts, as well as how these professionals entered the workforce during this period.

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Funding and Acknowledgments

This work was carried out with support from the Coordination for the Improvement of Higher Education Personnel - Brazil (CAPES) - Funding Code 001, to which we are grateful.

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- 2 - Author: Mara Quaglio Chirelli Type of Participation: In the conception and/or planning of the study and in the collection, analysis, and/or interpretation of data.
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- 4- Author: Thiago da Silva Domingos Type of Participation: In the writing and/or critical review and final approval of the published version.
- 5- Author: Kátia Terezinha Alves Rezende Type of participation: Writing and/or critical review and final approval of the published version.

Declaration of Conflict of Interest

Nothing to declare.



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