DOI: 10.1590/1413-812320232812.09312023EN

The role of PHC in times of crisis: an analysis of discretion of health workers during the COVID-19 pandemic

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Abstract *Crises are exceptional events that alter the structural arrangements under which street-level bureaucrats (SLBs) normally operate, generating resource shortages, the suspension of rules and routines, and changes in work practices. These characteristics highlight the importance of room for discretion, since quick decisions need to be made in a context pervaded by unpredictability. This study analyzed the impact of the COVID-19 pandemic in Brazil on the discretion of primary health care workers, seeking to understand which factors influence the exercise of discretion, focusing on organizational, emotional and scientific aspects. We used data from an online survey comprising open- and closed-ended questions conducted in March 2021 with 1218 primary care workers. The results show that, unexpectedly, discretion of SLBs does not become a panacea for the crisis. A large portion of professionals continued to operate within the rules, demonstrating a tendency to seek support at work, either through better organizational conditions, the reduction of uncertainty or from science.*

Key words *Health workers, Primary Health Care, Street-level bureaucracy, Discretion, COVID-19*

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Introduction

Since December 2019 the world has been facing a health crisis of huge proportions caused by the COVID-19 pandemic. This crisis has had serious political, social and epidemiological consequences. In Brazil, these consequences were felt amidst the rapid spread of cases of COVID-19 boosted by one of the worst government responses in the world, soon making the country one of the epicenters of the pandemic[1]. While structural factors such as persistent social and regional inequalities clearly hampered the handling of the crisis[2], the country's decentralized governance structure and universal public health system covering more than 70% of the population[3] showed that the coordination of the response to the pandemic fell far short of expectations[1,4].

Responding to a health crisis entails the effective delivery of health care services to the population[5,6]. The effectiveness of the health system response to the COVID-19 crisis depends on, among other factors, the implementation of public policies and the work of health policy implementers, or "street-level bureaucrats" (SLBs)[7]. The frontline of the response to a health emergency, also called frontline workers, entails a specific type of bureaucracy in public services[8-10].

In the field of public policy, inquiry into the work of SLBs and its impact on policy is well consolidated[7]. These professionals are characterized by direct interaction with the public, as in the case of social workers, nurses, community health workers, doctors, among others. These workers play a crucial role in policy implementation and have significant decision-making power in their interactions with citizens[7].

One of the central characteristics highlighted by the literature on the work of SLBs is discretion[11]. Discretion is the room professionals have to act according to demands in a given situation[12] and how they make decisions within this space[12]. Discretion is therefore an adaptive mechanism that derives from expertise, skills and proximity to the essential tasks that are performed in implementing a given policy[13]. When performing day-to-day activities, SLBs are impelled to make decisions concerning their field of activity, exercising discretion according to their understanding of norms and rules[7]. Hence, in practice, thanks to discretion, SLBs act as gatekeepers, defining who gets what[14].

The exercise of discretion by SLBs does not mean noncompliance with rules, regulations and guidelines or professional standards and practices[10], but rather reflects their understanding of these norms and their application in a given context. However, the degree of control and limitations of the discretionary actions of frontline workers requires analysis when they may have implications for the expected results of public policies[15].

When crisis strikes, the exercise of discretion gains relevance due to the complexity and unprecedented nature of the situation[16]. Crises are significant events that result in exceptional situations[17] caused by natural disasters and emergencies, as in the case of the COVID-19 pandemic. These Crises give rise to important discussions about the structural circumstances that affect street-level bureaucracy[16].

In times of crisis, SLBs are expected to perform their functions regardless of the magnitude of the disaster or emergency[18]. However, it is known that exogenous structural shocks generate changes in the functioning of response organizations, giving rise to adjustments in working conditions and ways of working[16]. Thus, "surprise" situations lead to behavioral changes that require faster decision-making[19]. The literature affirms that during crises room for discretion increases due to an absence of rules and prior experience[20,21], which can result in greater freedom of action for professionals[20]. Hence, the exceptional nature of crises can have a direct impact on the work and speed of response of SLBs[19] and prompt institutional and organizational changes directly linked to working conditions and ways of working[16].

Crises have an impact on the implementation of public policies, with SLBs beginning to play a more direct role in the policy redesign and modification process[16], making the analysis of the work of SLBs during the COVID-19 pandemic all the more important. Although recent literature has paid a lot of attention to the work and working conditions of frontline workers during the crisis, few studies have investigated how the crisis impacted worker decision-making. Articulating the literature on the discretion of SLBs to understand the impact of the crisis on frontline health worker decision-making can therefore make some important contributions to the field of public health, especially during extreme situations.

While bureaucratic discretion is a recurring topic in studies in this area, there is little information in Brazil on how this bureaucracy deals with decision-making power in contexts of crisis. The magnitude of the COVID-19 health emergency and its impact on frontline workers and

health policy in Brazil reinforce the importance of gaining a better understanding of the work of bureaucrats in such contexts. To this end, we sought to understand the exercise of discretion by SLBs in a context of crisis, investigating which factors influence the propensity of frontline workers to override rules during the pandemic. The present study sought to understand the individual actions of frontline primary care workers and investigate the factors linked to the decision to act in a discretionary manner in a context of a crisis; that is, how a bureaucrat interprets the crisis as a being sufficient justification to transgress the rules and which factors influence the exercise of extreme discretion.

Methodology

Data collection

We conducted a descriptive study with data collected using an online anonymous survey comprising open-ended and close-ended questions with multiple answer options. The study was undertaken between March 1 and 20, 2021 using a convenience sample of individuals recruited via email, social media (Twitter, Facebook, LinkedIn, WhatsApp) and professional bodies. Online surveys have been used by similar studies investigating the working conditions of health workers during the response to COVID-19[22-24] and previous public health emergencies[25,26]. Considering the research challenges posed by the pandemic and urgent nature of the study, this type of survey provides greater acceptability of the use of convenience sampling[27] as it bridges the gap in synthetic and descriptive data on the reality of frontline workers. However, the fact that a non-probability sampling design was used means that it is not possible to generalize the results to other populations of frontline health workers.

The survey was answered by 1,829 individuals. We analyzed the data from the surveys answered by professionals working in primary care services (n=1,218), considering the importance of primary health care in responses to health crises and the lack of guidelines and consequent underutilization of this level of care during the COVID-19 emergency[1,6]. The surveys were responded by different types of healthcare workers from across all states and with differing lengths of service. The sample was made up predominantly of community health workers (CHWs) and endemic disease control agents (EDCAs), accounting for 78% of the respondents (945 individuals). The remaining respondents comprised 123 other professionals (10%), 106 nurses (9%) and 44 doctors (4%). Most of the respondents were from the Northeast (56%), followed by the Southeast (19%) and South (12%). The North and Midwest accounted for 6% each. Most of the respondents (935 or 76.77%) were women. Brown people represented 51.1% of the sample and most respondents had been working in their area of activity for more than 20 years. The average age of the professionals was 44.

Data analysis

Based on the theory that Crises lead to changes in decision-making behavior[16], the central analytical dimension of the analysis was discretion of SLBs. Frequencies were used to analyze the exercise of discretion by frontline workers during the COVID-19 pandemic based on the following two dimensions: propensity to change rules for the benefit of patients and propensity to change rules for the benefit of work. Based on the results, the respondents were categorized into three groups: prone to change rules, not prone to change rules and indifferent.

The discretion of SLBs was also analyzed using three explanatory variables: organizational aspects, emotional aspects and scientific aspects. The first refers to organizational working conditions during the crisis, the second addresses the emotional problems experienced by the respondents, especially related to the effects of fear at work, and the third indicates how the respondents view scientific issues.

For analysis purposes, we read and categorized the material from respondents who stated that it was very likely or likely to act in a discretionary way during the pandemic. The qualitative analysis was performed using thematic analysis[28]. The answers to the open-ended questions are presented identifying each respondent using the letter R followed by the identification number used in the study dataset. The responses to the open-ended questions presented below represent the perceptions of the workers who were prone to change rules for the benefit of patients or work (Chart 1).

All stages of the study were conducted in accordance with the relevant ethical norms and standards for research involving human beings (Resolution 466/2012, Resolution 510/2016 and Resolution 580/2018). The study protocol was approved by the research ethics committee.

Results

Bureaucratic discretion

We sought to understand the discretion of the respondents by dividing the observations into three groups: those who were prone to changing the rules (who reported they were likely or very likely to change the rules); those who were not prone to changing the rules (who reported they were very unlikely or unlikely to change the rules); and those who were indifferent (who reported they were neither likely nor unlikely to change the rules) (Table 1).

The findings show that the exercise of discretion varied across respondents, with similar percentages for propensity to change rules both for the benefit of patients and work: 39.76% of respondents reported they were unlikely or very unlikely to change the rules for the benefit of patients, 36.04% said they were likely or very likely and 24.20% were indifferent; while 41.66% respondents were unlikely or very unlikely to change the rules for the benefit of work, 31.29% were likely or very likely and 32.32% indifferent. Sixty-one respondents did not answer the question.

Organizational aspects

The organizational dimension seeks to identify how the exercise of discretion can be affected by organizational working conditions. The respondents who reported acting in a discretionary manner confirmed that organizational conditions had an impact on everyday work during the COVID-19 crisis.

Exhausting working hours, as one respondent points out: "*lack of support for health workers like in the hospital where I work, I haven't taken leave for 4 years, not even public holidays to rest, it's inhumane*" (R3), and lack of "*preparedness and PPE*" (R963) demonstrate dissatisfaction with the work environment. Respondent 29 emphasizes "*lack of training, PPE shortages and poor care center facilities*" (R29) as central problems in the response to the health crisis, while R1571 highlighted the following: "*What struck me most was when they began to hand out PPE and said we didn't need to use it, and it wasn't provided at the time*".

Combined with the political backdrop, these factors exacerbated feelings of uncertainty: "*Work processes, roles and responsibilities. There's a need for daily adjustments to the processes, demands; workplaces that have changed frequently due to health staff shortages and constant organizational and political changes*" (R1554).

Organizational change was deeply felt by the respondents, as respondent 76 shows: "*Routines and norms changed, overloading [health workers] even more unfortunately*". The findings show that changes in routines and unclear protocols permeated the respondents' work. Respondent 1014 points out that "*as soon as the COVID-19 pandemic started [...] the local government health department summoned us and wanted us to do home visits without having given us any protective material; and told us that we were frontline soldiers. I felt like I was going to war just to die*" (R1014). The sense of lack of facilities and preparedness can be summed up by the following comment: "*lack of work facilities that ensure safety*" (R1431).

Changes to routines also extended to exhaustion linked to patient demands: "*We don't enter homes anymore, cell phone usage to solve patients' problems has increased. It's tiring repeating the same old care spiel, with the population making fun of you. Not to mention the demands related to patients' personal anguish*" (R161).

The responses therefore suggest that there is a propensity to override the rules under adverse conditions, that is, when workers feel unprepared due to lack of training or when they feel they do not receive support from their superiors.

Emotional dimension: the effects of fear

The emotional dimension seeks to identify how acting in a discretionary manner may be affected by fear at work during the pandemic. The increasing numbers of cases and deaths was a recurring concern among respondents who were willing to override the rules. The latter felt even more affected by public disregard for the impacts of COVID 19. According to respondent 352, for example, one of the things that contributed most to a sense of fear was "*leading directly with people who don't care about themselves let alone others*" (R352). The feeling of powerlessness in the face of the unknown was also a relevant factor: "*The feeling of defenselessness, in spite of the personal preventive actions you take*" (R419). Respondent 729 sums up this situation: "*Being a new virus, the health effects are not completely clear. Besides that, the unpreparedness of the federal government in handling the crisis has contributed to insecurity*". Among the respondents who reported being likely or very likely to act in a discretionary manner, fear appears to be related to uncertainty over

Ciência & Saúde Coletiva, 28(12):3563-3572, 2023

Chart 1. Aspects and questions used in the survey for health workers.

Aspects	Variable	Question	Types of question
Organizational	Changes in work processes	What changed?	Open-ended
	Preparedness for handling the crisis	What contributes most to you feeling this way?	Open-ended
	Perceptions of the future	How do you imagine your job in the few months?	Open-ended
Emotional	Changes in work processes	What changed?	Open-ended
	Preparedness for handling the crisis	What contributes most to you feeling this way?	Open-ended
	Perceptions of the future	How do you imagine your job in the few months?	Open-ended
Scientific	Changes in work processes	What changed?	Open-ended
	Preparedness for handling the crisis	What contributes most to you feeling this way?	Open-ended
	Perceptions of the future	How do you imagine your job in the few months?	Open-ended
Discretion	Likelihood of overriding the rules to benefit patients	We are aware the during your work certain rules need to be adapted to work during the pandemic. With this in mind, how likely would you be to override the rules if you thought it would benefit patients?	Very unlikely or unlikely
			Likely or unlikely
			Neither likely, nor unlikely
	Likelihood of overriding the rules to benefit work processes	Still thinking about specific needs related to the pandemic, how likely would you be to override the rules if you thought it would benefit your work processes?	Very unlikely or unlikely
			Likely or unlikely
			Neither likely, nor unlikely

Source: Authors.

Table 1. Likelihood of acting in a discretionary manner during the COVID-19 crisis.

	Likelihood of overriding the rules to benefit patients		Likelihood of overriding the rules to benefit work processes	
	n	%	n	%
Prone	417	36.04	362	31.29
Not prone	460	39.76	482	41.66
Indifferent	280	24.20	313	27.05

Source: Authors.

the consequences of the disease, types of treatment and pandemic numbers: "*Little knowledge about everything that's happening, everything is really new, nothing is certain*" (R919).

The relationship between an increased feeling of insecurity and lack of clarity in the actions developed by the federal government is a common factor in the accounts of the respondents who were willing to bend the rules as shown by the following answers: "*federal government inconsistencies and misinformation during the pandemic response*" (R90) and "*lack of organization of political leaders in the handling of the disease*" (R712). These effects also seem to extend to perceptions of health system underfunding, which is referred to as "*shortages of materials, beds and*

staff" (R695) or as follows: "*It's still a little known disease, we have little resources, overloaded teams, a government that undermines the response to the pandemic. And a population that is following care guidelines less and less*" (R978).

Despite these factors, the respondents' comments reveal motivation to work. Many respondents also mention the importance of family and the team in dealing with the crisis. Respondent 1279 highlights "*my faith and my family*" (R1279) are highlighted as motives to feel prepared to work. The desire to help the population, faith in God, vaccination, the adoption of phytosanitary protocols and prior experience are also factors cited by the respondents. In this respect, respondent 892 states: "*I am a frontline professional and besides pandemics we could have a dengue epidemic in our region at any moment, so we have to fight against all this bad*" (R892).

Scientific aspects

The scientific dimension sought to identify how acting in a discretionary manner is linked to respondents' perceptions of scientific issues, particularly concerning their technical preparedness and knowledge. The findings reveal a notable lack of information and preparedness: "*lack of real information about the disease*" (R1387). The term "real" used here appears to refer to the unreliability of the information disseminated about the disease and lack of knowledge on the topic: "*Uncertainty about the virus and types of infection and treatment, and vaccine effectiveness. Certainties that change every day*" (R429).

The data presented reveal respondents' perceptions on three specific topics: alternative treatments, medicines used for other treatments and vaccination. With regard to the first two topics, which include type of treatment and use of medicines without scientific evidence of their benefits, respondents who are more likely to override the rules tend to delegate choice to the patient.

With regard to vaccination, the respondents' comments suggest that the vaccine represented hope for the complex situation that the respondents were experiencing. Respondent 118 provides insight into what to expect from the future: "*It will be full of hope for people who have been vaccinated and anguish for those who want to be vaccinated soon and can't because there aren't enough vaccines*" (R118).

When it comes to treatment, the findings show a change in the interplay between respondents and patients: "*Many come here demanding early treatment*" (R1724) and "*increased irritability with patients who defend treatments known to be ineffective*" (R101). Respondent 349 adds to her views on the topic: "*A lot of stress, lack of support, no support, indignation at the lack of care and clarification about proper [treatment] methods and the step-by-step of vaccination*" (R349). The defense of early treatment was not restricted to patients, as respondent 1421 shows: "*There is a group among doctors that is favorable to early treatment that is known to be ineffective. I suffered verbal abuse because I disagreed, from a doctor actually [...] My posture is pro-science, and these attacks don't stop*" (R1421).

Discussion

SLBs work within a programmatic institutional structure. They are able to implement public policies in their own way as a series of cracks in these structures enable these professionals to work with a substantial degree of discretion[11]. In this sense, it is during implementation that SLBs make decisions that determine how a policy will actually be delivered to the population. This room is called discretion – the daily exercise of decision-making to enable the delivery of public policies. Maynard-Moody and Musheno[29-31] propose that discretion should be viewed as a manifestation of the autonomy of bureaucrats, as their decisions are based on issues that extend beyond rules and norms. In this sense, autonomy is interactional and an intrinsic dimension of human action that is manifested in social structures. Autonomy is therefore the ability to make judgements and act based on them in a given situation.

The COVID-19 pandemic gave rise to a context marked by lack of rules, incompatibility of existing rules with reality and reduced control over the work of frontline workers[20,32]. These factors may influence the level of discretion of SLBs, materializing in a broader margin of action and decision-making during implementation and greater policy flexibility[32,33]. However, as some studies show, increased likelihood of discretion is not necessarily transformed into concrete actions on the part of bureaucrats[34,35] because lack of training, information and support can lead to inaction[36].

In the midst of the COVID-19 pandemic, research into discretion has gained new contours, especially when it comes to health workers – key players in the pandemic response who have put themselves at risk due to the need for face-to-face

interaction. Studies show that there was no dominant trend towards amplifying or diminishing room of discretion among primary care professionals during the crisis. While nurses were able to adapt working practices and enjoyed greater autonomy[37,38], CHWs felt they lost their role as health workers[39,40]. The present study confirms that there was no trend towards acting in a discretionary manner during the COVID-19 public health emergency.

Crises can change the way bureaucrats work (discretion). During these events, certain factors can arise that can encourage or curb SLBs' tendency to change behavior. As Table 1 shows, respondents do not show a marked tendency to override the rules while working in a crisis. In other words, the crisis alone does determine greater or lesser room for discretion. The latter therefore depends on each given situation or context. That is why we sought to understand whether or not the crisis has an impact on work and the factors that influence this impact. To this end, we investigated to what extent organizational conditions, fear and SLBs' scientific knowledge influenced the exercise of discretion during the pandemic.

In general, the findings indicate that feeling safe at work in a crisis is related to the support received by SLBs, be it organizational support, feeling less afraid, which results in less uncertainty, or enjoying more professional and scientific knowledge. Feeling safe at work can positively restrict the room SLBs have for discretion, demonstrating that the latter is not a good or bad thing per se, but rather directly related to the setting. At times of crisis, it is preferable to have less room for discretion if what needs to be done is expressed in a clear and uncontroversial manner.

Our findings show overriding the rules or not by exercising discretion is less important than job stability and support, provided either by organizational structure or access to information. The qualitative data suggest that SLBs met patient demands by acting creatively[41] in response to adversities. Said creativity was essential given the failure of different levels of government to develop clear guidelines to ensure adequate funding for the effective implementation of health policies[1,4]. In this respect, ambiguity in regulations and lack of federal government support created more room for the exercise of discretion by SLBs[42].

Discretion in times of crisis and political creativity are intimately linked. While rules, institutional roles, trajectories and culture situate actors in political contexts, improvisation and political transformation come about from human action[43]. Our findings suggest that only a small proportion of the SLBs reported that, under adverse conditions, confronting or overriding the rules is a solution for crisis. The data therefore show that political creativity heightened by the crisis did not necessarily result in questioning of the rules and room for action on the part of the SLBs.

This highlights that room for discretion in itself, indicated here by willingness to override the rules, is less important than the context in which this greater or lesser room is embedded. This shows that organizational chaos, uncertainty and disrespect for scientific evidence may influence the behavior of SLBs, who will sometimes decide to override the rules and sometimes respect them, yet always with the aim of ensuring safety at work without losing sight of what they understand to be best for patients.

This study sought to identify factors related to the exercise of discretion by primary care professionals in Brazil during the COVID-19 pandemic. Its central argument aims to demonstrate that the crisis influences the work of SLBs, as shown in Figure 1.

Conclusion

As expected, the COVID-19 pandemic broke the status quo and created an environment that exacerbated the critical elements of times of normality. There is more pressure on the health system, greater resource scarcity and a need for

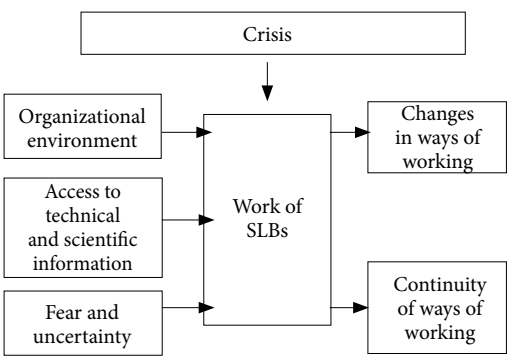

Figure 1. Exercise of discretion in times of crisis.

Source: Authors.

rapid responses that affect the work of SLBs[16,20,34-36]. The crisis has affected work practices, working conditions and provider-patient interaction, with implications for service quality and delivery[16,35].

This article discusses how SLBs adapt to crisis and the factors affecting decision-making during a pandemic. Thes results show that, unexpectedly, discretion of SLBs does not become a panacea for the crisis, geared towards creative and uncontrollable work practices. A large proportion of frontline workers continue to operate within the rules and the latter appear to be an important source of constraint to work. This is because these professionals always seek support at work, which is either be given though strict respect for the rules and procedures or noncompliance. However, our findings show that overriding or nor overriding the rules is less important than job stability and support at work in times of crisis.

The literature on how SLBs operate in situations characterized by an exponential increase in tension caused by resource shortages or other issues arising in extraordinary situations such as public health emergencies remains scarce[35]. Future research should therefore further explore the findings of the present study, seeking to understand the factors that explain the exercise of discretion within the rules even in times of crisis.

Collaborations

All authors contributed to study conception, the definition of study methodology, data analysis, the discussion of the results and to drafting the article.

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Article submitted 14/06/2023
Approved 14/08/2023
Final version submitted 16/08/2023

Chief editors: Romeu Gomes, Antônio Augusto Moura da Silva