

Communication strategies adopted by the management of the Brazilian National Health System during the Covid-19 pandemic


Estratégias de comunicação adotadas pela gestão do Sistema Único de Saúde durante a pandemia de Covid-19 – Brasil (resumo: p. 20)

Estrategias de comunicación adoptadas por la gestión del Sistema Brasileño de Salud durante la pandemia de Covid-19 – Brasil (resumen: p. 20)


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The main communication strategies developed by the three levels of the Brazilian National Health System (SUS) for the management for coping with Covid-19 in Brazil were characterized and analyzed. The research encompassed Websites, Twitter, YouTube, Instagram and Facebook, press conferences, apps and epidemiological bulletins, totaling 35 strategies. Although communication is one of the key axes in response to the pandemic, a significant part of the strategies did not adequately address the topics of surveillance, care, promotion and health education. It was observed a predominance of the utilitarian, centralizing and functional communication model, focusing on the transmission of information. The State has a duty to promote community and emancipatory communication, considering the diversity of subjects, the local context and the development of communicative networks, respecting the human and social right to communication, information and voice, according to the principles and guidelines of the SUS.

Keywords: Covid-19. Health communication. Social media. Community participation. Public health surveillance.



Introduction

The Covid-19 pandemic emergency has affected thousands of people and produced social, economic, and healthcare system impacts. The virus was identified in December 2019, and on January 30, 2020, the World Health Organization (WHO) declared a Public Health Emergency of International Concern (PHEIC), considered the highest level of alert¹.

Until August 8, 2020, more than 19 million cases and 727,008 deaths have been registered worldwide, surpassing three million cases and 100,000 deaths in Brazil², leaving the country in second place worldwide.

Due to its magnitude, information related to the pandemic needs to be produced and disseminated in a timely manner³. The establishment of communication strategies in the face of public health crises must produce community engagement both to make evidence available and to build collective actions for confrontation and mitigation of damage, and thus contribute to the insertion of populations in situations of vulnerability³⁻⁵.

The population must be recognized as producers and participants of information, considering communication as a fundamental human right for the constitution and functioning of the Brazilian National Health System (SUS)⁶⁻⁸.

Communication strategies enable the symbolic construction in which people receive, process and produce sense in their lives⁹ and health communication in this perspective allows the broadening of the debate on health needs, reflection on public interests, and strengthening of the integrality of care and intersectoriality of health actions³. The WHO emphasizes risk communication and community engagement as essential to successful responses to public health emergencies, and warns that failure in this field can cause loss of trust, reputation, economic impacts, and death¹.

The Brazilian Ministry of Health (MoH) defined, in its emergency action plan, health communication as one of the fundamental axes in facing the pandemic, with emphasis on public engagement in the development of actions, making available scientific evidence on Covid-19 and clarifying rumors in appropriate channels¹⁰. States and municipalities have also considered the importance of communication in the pandemic, but historically it have been observed that there is a distance of this from the principles that organize the practices of health policies, by establishing the concentration of production and circulation of communication, not considering contexts and understanding participation as simple adherence^{3,4,8}.

This article seeks to analyze the online and digital communication strategies adopted by the three levels of SUS management to confront the Covid-19 pandemic.

Methods

This is a qualitative, descriptive, and cross-sectional study. The communication strategies developed during the pandemic by the three levels of SUS management were mapped, considering the autonomy of the federated entities.

The screened cases came from the MoH, the State Health Secretariat of Pernambuco (SES/PE), and the Municipal Health Secretariats (SMS) of Recife and Caruaru (capital and Agreste Region - interior). Pernambuco was chosen because it was one of the states with the highest number of cases and deaths in the first half of 2020, reaching an ICU bed occupancy rate for Covid-19 of 98% on May 30, 2020¹¹. Recife also had a high incidence and one of the highest mortality rates in the state¹². Caruaru was elected for representing the interiorization of the pandemic by becoming the epicenter of dispersion of cases with a 601% jump in June, 2020¹¹.

The data were compiled between March and June 2020, in the official platforms, open access and available on the Internet, at each level of management, considering the publication of information about the pandemic: Institutional websites, official social media - Twitter, YouTube, Instagram and Facebook, press conferences, apps and epidemiological bulletins. The posts made during the research were consolidated in a spreadsheet considering three levels of analysis (Frame 1).

Frame 1. Analytical levels and description of the categories

First Level	Descriptive analysis of the general characteristics of the communication strategies used to face the pandemic, in accordance with the SUS management level.
Second Level	Content analysis to identify the approaches to the thematic categories: i) Health surveillance, observing prevention, control, risk, danger, and health situation analysis actions; ii) Health care, observing information on the available network, expansion of services, pharmaceutical assistance, diagnosis, treatment, supplies, equipment, and human resources; iii) Health promotion, observing social, economic, political and cultural issues, in the collective and individual spheres, for quality of life; iv) Health Education, noting the existence of emancipatory political-pedagogical processes; v) Continuing Education in Health, considering strategies that incorporate the health work process as a promoter of change.
Third Level	Investigation of the quality of communication strategies as per: i) Clarity of language: easy for the audience to understand the information, correct grammar, use of common words, legible designs; ii) Communication model: - Informational (linear, unidirectional, bipolar communication - sender and receiver), of technological and instrumental language with elimination of interferences and disregarding affective, cognitive, political, economic dimensions) - Networked (diversity of social voices that circulate their meanings in various directions, conducting multiple discourses, ideas, proposals, opinions, and feelings) iii) Dialogical Communication: interaction/dialogue and active participation of the interlocutors; iv) Diversity of actors (polyphony): presence of multiple voices, from various actors, which articulate and/or compete with each other. v) Different contexts: considering social, cultural, economic, political contexts.

Source: Authors, 2021.



Results

When considering the eight communicational variables used by the different levels of management, the study identified a total of 35 strategies.

Communication strategies

The epidemiological bulletins published by the MoH, SES/PE, and SMS Recife contemplated guidelines for the performance of surveillance and health care in the pandemic. They presented elements such as monitoring the epidemiological situation, morbidity and mortality profile, guidelines for epidemiological and laboratory surveillance, data on the healthcare network, prevention measures, treatment and pharmaceutical assistance. The SES/PE bulletin highlighted cases among health professionals, an important monitoring of worker health. Even though Caruaru produced 43 bulletins, the contents did not bring enough information to present an epidemiological panorama of the municipality, making it difficult to organize surveillance actions.

All four institutions adopted press conferences. At MoH, with the departure of two health ministers (Luiz Henrique Mandetta and Nelson Teich) at the peak of the pandemic, they became increasingly scarce. The press conferences in Recife (municipal) and SES/PE (state) are usually held together.

The federal and state governments have created official websites to disseminate information about Covid-19. In the state, the hotspot “Pernambuco against Covid-19” was created, and the website of the Pernambuco School of Public Health (ESPPE) was restructured to include information about Covid-19. In Recife, the hotspot established provides basic information. In Caruaru, despite the existence of the SMS website, information about the pandemic is posted on the municipal administration website, including reports, actions, and news.

The identified apps were Coronavirus SUS, from MoH, and the platform “Atende em Casa”, which works as a website and an app, developed in partnership with SES and Recife.

Only the MoH uses its own profile in all social media. The others use both the health-specific profiles and the official state or city profiles. Videos are disseminated mainly through YouTube, Twitter, and Facebook and are updated daily.

Thematic categories of the strategies

Communication strategies were identified addressing the topics of Surveillance, Care, Promotion, Education, and Ongoing Health Education at all management levels (Frame 2).



Frame 2. Thematic categories of communication strategies used by SUS management during the Covid-19 pandemic, March to June 2020

Health Surveillance				
Communication strategy	Management Level			
	Federal	Statewide	Municipality (Capital)	Municipality (Agreste)
Twitter	Yes	Yes	Yes	Yes
YouTube	Yes	Yes	Yes	Yes
Facebook	Yes	Yes	Yes	Yes
Instagram	Yes	Yes	Yes	Yes
Press Conference	Yes	Yes	Yes	Yes
Epidemiological Bulletin	Yes	Yes	Yes	No
Applications	No	No	No	Does not include
Webites	1-Yes/2-Yes*	1-Yes/2-Yes	Yes	Yes
		3-Yes**		
Health Care				
Communication strategy	Management Level			
	Federal	Statewide	Municipality (Capital)	Municipality (Agreste)
Twitter	Yes	Yes	Yes	No
YouTube	Yes	Yes	Yes	Yes
Facebook	Yes	Yes	Yes	Yes
Instagram	Yes	Yes	Yes	Yes
Press Conference	Yes	Yes	Yes	Yes
Epidemiological Bulletin	Yes	Yes	No	No
Applications	Yes	Yes	Yes	Does not include
Webites	1-No/2-Yes*	1-Yes/2-No	Yes	Yes
		3-Yes**		
Health Promotion				
Communication strategy	Management Level			
	Federal	Statewide	Municipality (Capital)	Municipality (Agreste)
Twitter	No	Yes	Yes	No
YouTube	No	Yes	Yes	No
Facebook	Yes	Yes	Yes	Yes
Instagram	No	No	Yes	Yes
Press Conference	No	No	Yes	No
Epidemiological Bulletin	No	No	No	No
Applications	No	Yes	Yes	Does not include
Websites	1-No / 2-No*	1-Yes / 2-No	Yes	No
		3-Yes**		

Continue.



Health Education				
Communication strategy	Management Level			
	Federal	Statewide	Municipality (Capital)	Municipality (Agreste)
Twitter	Yes	Yes	Yes	No
YouTube	Yes	Yes	Yes	Yes
Facebook	Yes	Yes	Yes	Yes
Instagram	Yes	Yes	Yes	No
Press Conference	Yes	No	No	No
Epidemiological Bulletin	No	No	No	No***
Applications	Yes	Yes	Yes	Does not include
Websites	1-No / 2-Yes*	1-Yes / 2-No	Yes	Yes
		3-Yes**		
Continuing Education				
Communication strategy	Management Level			
	Federal	Statewide	Municipality (Capital)	Municipality (Agreste)
Twitter	Yes	No	No	No
YouTube	No	Yes	No	No
Facebook	Yes	No	No	No
Instagram	Yes	Yes	No	No
Press Conference	No	No	No	No
Epidemiological Bulletin	No	No	No	No
Applications	No	No	No	Does not include
Websites	1-No / 2-Yes*	1-Yes / 2-No	Yes	No
		3-No**		

* Two websites: 1. Epidemiological panel 2. Institutional (MoH)

** Three websites: 1. State Government School 2. CIEVS 3. SES/PE

*** Publishes only short reports

Source: Authors, 2021.

Health surveillance was addressed at the three levels of management. In Caruaru, the epidemiological bulletins presented limited information, restricted to the accounting of cases, deaths, and recovered cases. Workers' health surveillance was addressed only in the SES/PE bulletins, containing information on the morbidity and mortality of health workers. The communication actions in surveillance are focused on the structuring of the epidemiological profile, distribution of cases, and disease prevention and control.

The health care category was not identified in the Twitter of Caruaru; in the epidemiological bulletins of Recife and Caruaru; and in the websites of the epidemiological panel (federal) and of the Center for Strategic Information for Health Surveillance (Cievs/state). The epidemiological bulletins generally do not address this topic, since they focus on the epidemiological picture and surveillance actions. It was observed in the MoH and SES/PE bulletins information regarding health care coverage: hiring of professionals, available network, expansion of services, pharmaceutical assistance, treatments, supplies, and



equipment. The Coronavirus-SUS app expands the possibilities of assistance by proposing virtual health care, providing information on symptoms, prevention, and how to behave in case of suspicion, as well as a map of reference units.

Recife addressed health promotion in most strategies, seven out of eight. SES addressed it in six cases, Caruaru in two, and MoH in one. Websites, epidemiological bulletins, and press conferences did not consider the complexity of the social determination of health, neglecting specific vulnerabilities of the population that can affect morbidity and mortality by Covid-19.

Facebook was the strategy where the topic of promotion was most frequently addressed, especially by the municipalities, and it was observed a greater approximation of management with the territory. In Caruaru, we highlight the development of Integrative and Complementary Practices (PICs), dance classes, thematic workshops on mental health, violence against women and other topics that go beyond the prevention and control of the disease. The “Delivery Sulanca” was also implemented, a service that aims to enable the sale of clothes made in the region during the pandemic, since this is one of the main local economic activities.

No information was identified in the category of Health Education on Caruaru’s Instagram and Twitter, epidemiological panel sites (both federal and state), epidemiological bulletins, and press conferences, except for the press conferences at the Federal level, although following campaign rationales. The MoH guidance reinforces the importance of measures to prevent the transmission of the Coronavirus, including: hand washing, sanitizing with alcohol gel, “respiratory etiquette”, social distancing, not sharing personal objects and the use of cloth masks.

Continuing Education was frequently addressed within the Union. The MoH website, Twitter, Instagram and Facebook featured materials and dissemination of courses for health professionals. In the state, the topic emerged on YouTube, Instagram, and on the ESPPE website, which makes technical materials available (online courses, web lectures, podcast). Among the municipalities, only Recife has addressed the topic on its website, providing courses for health professionals on the use of personal protective equipment (PPE), prevention and primary care, medium and high complexity.

The ESPPE website features several technical materials, mostly aimed at health professionals, considering specific populations (homeless people, deprived of freedom, rural population, black, indigenous and LGBTQI+). The Cievs website does not present data on social vulnerability or other issues related to health promotion, nor does it address continuing education content.



Quality of communication strategies

We analyzed the clarity of the language, the predominant communication model, dialogicity, diversity of actors, and consideration of different social contexts of the communication strategies.

Frame 3 describes the analyses according to the federal and state levels of management.

Frame 3. Quality of communication strategies in SUS management during the Covid-19 pandemic, federal and state level, March to June 2020

Federal Level					
Strategy/Profile	Language	Predominant communication model	Dialogic	Diversity of players	Different contexts
Twitter – @minsaude	Plain language	Informational	No	Predominance of institutional voices	Does not display
YouTube – MoH					
Facebook – @minsaude					
Instagram – @minsaude					
Press conferences – YouTube					
Application – App MoH					
Website MoH – coronavirus.saude.gov.br/	Mixed language (plain and technical)				
Epidemiological Bulletins – saude.gov.br/boletins-epidemiológicos	Technical language				
Website Panel – covid.saude.gov.br/					
State Level					
Strategy/Profile	Language Clarity	Predominant communication model	Dialogic	Diversity of players	Different contexts
Twitter – @SaudePE	Plain language	Informational	No	Predominance of institutional voices	Does not display
YouTube – Governo de Pernambuco					
Facebook – @saude.pe					
Instagram – @saude_pe					
Press conferences – YouTube Governo de Pernambuco					
Application – www.atendeemcasa.pe.gov.br					
Website SES – pecontracoronavirus.pe.gov.br	Technical language				
Epidemiological Bulletins – portal.saude.pe.gov.br/boletim-epidemiologico-covid-19					
Website ESPPE – ead.saude.pe.gov.br/course					
Website Panel – cievspe.com/novo-coronavirus-2019-ncov					

Source: authors, 2021.

Frame 4 presents the quality analyses at the municipal level according to the cities of Recife and Caruaru.

Frame 4. Quality of communication strategies in SUS management during the Covid-19 pandemic, municipal level, March to June 2020

Municipal Level (Capital)					
Strategy/Profile	Language	Predominant communication model	Dialogic	Diversity of players	Different contexts
Twitter – @prefrecife	Plain language	Informational	No	Voices of a diversity of social players	Presents different contexts
YouTube – prefrecife					
Facebook – @sesaupcr					
Instagram – @prefeiturarecife					
Press conferences – YouTube					
Application – www.atendeemcasa.pe.gov.br	Technical language			Predominance of institutional voices	Does not display
Website PCR – novocoronavirus.recife.pe.gov.br					
Epidemiological Bulletins – cievsrecife.wordpress.com/publicacoes-devs-sesau-recife					
Municipal Level (Agraste)					
Strategy/Profile	Language Clarity	Predominant communication model	Dialogic	Diversity of players	Different contexts
Twitter – @PrefCaruaru	Plain language	Informational	No	Voices of a diversity of social players	Presents different contexts
YouTube – Prefeitura de Caruaru					
Facebook – @PrefeituradeCaruaru					
Instagram – @prefcaruaru					
Press conferences – YouTube					
Website Caruaru – caruaru.pe.gov.br/coronavirus/	Technical language				Does not display
Epidemiological Bulletins – saudecaruaru.pe.gov.br					

Source: authors, 2021.

The social media of all management levels featured textual language and simplified spelling, without ambiguity or unnecessary terms, containing images, illustrations and videos. The press conferences were broadcasted on TV and by social media, especially YouTube, reporting the developed actions in a simple and objective way. We highlight the inclusion of the hearing impaired through Brazilian Sign Language (LIBRAS) interpreters.

The epidemiological bulletins contained a primarily technical language, with texts, graphs, tables, and maps with case distribution. The bulletins published in card format in social media were translated into a direct language, presenting objective and summarized data.

The Coronavirus-SUS and Atende em Casa app and the websites created exclusively for publishing content about Covid-19 (state and municipal) had clear language, through direct and playful textual construction, with the use of drawings for preventive guidance. The MoH website displayed mixed language, with clear language in some parts and



many technical terms in others. The epidemiological panel (federal and state) and ESPPE websites were structured in a technical language geared toward health professionals, with complex texts, graphs, and schemes.

The prevalent communication model in the strategies of all management levels was informational, linear, and unidirectional, marked by the transfer of information. In the social media, the posts carried recommendations for hand washing, use of masks, and alcohol gel. The collective meetings were characterized by the review of the developed actions, such as the construction of a field hospital, purchase of supplies, and provision of services. The bulletins inform the epidemiological situation, with no space for interaction/dialogue. In the apps, the informational model is characterized by the way the information is laid out, such as health care recommendations and tele-care. The websites contain most of the information, fulfilling a role of transmission.

None of the strategies exhibited dialogic communication, because in all of them the sender was considered the holder of knowledge and the receiver, a passive agent.

In the category 'diversity of players', all strategies at the federal and state levels were composed mostly of institutional representatives, such as ministers, secretaries, managers, health technicians, professionals of essential services or the communication team itself. In the municipalities, greater diversity was observed in social media, with institutional and popular voices (athletes, singers, health workers, teachers, and SUS users) in the publications. The press conferences, newsletters, websites, and apps presented only

The differences in social contexts were not factored into any federal and state strategies. In the municipalities, strategies primarily targeted the general public, such as social media. Newsletters, websites, and bulletins at the municipal levels disregarded these contexts.

Discussion

In the pandemic Covid-19 context, communication, when used in a non-instrumental way, assumes a relevant role in determining health by understanding its crosscutting characteristic in political, economic, social, cultural, and technological processes. More than communicating the risk, it is necessary to analyze people's perceptions, promoting the exchange of qualified information to confront the threats to collective health¹, comprehending the context and the social construction of the meanings and for a more democratic communicational practice³. Communication needs to be understood considering the relationship of the interlocutors, the circulation, production of meanings and discursive practices^{3,13} and to this end it is necessary that health institutions articulate themselves with community movements and initiatives. Facing uncertainties, communication in a crisis situation requires institutions to establish an honest and trustworthy relationship with the population.

The widespread use of the Internet and social media today demonstrates the power of communication tools, and has generated a process of mediatization in the field of health, whether in the scientific field - through accelerated scientific dissemination - in the media, or in the political field, represented by health management and its institutional



communication vehicles^{3,8}. It is on the Internet where the discursive disputes take place, even provoking infodemics, characterized by the excess of circulating information with exponential multiplication power in a short period of time¹⁴, and pandemedia, which is the turmoil in the media landscape related to the pandemic⁸.

Communication strategies

The epidemiological bulletin is a fundamental surveillance instrument used to disseminate technical and scientific information on the epidemiological situation and to direct surveillance, prevention, and control actions against diseases and illnesses of sanitary relevance^{15,16}, being effective, low-cost and easy-to-use means of communication for Health Surveillance¹⁷. The epidemiological bulletins analyzed partially fulfilled this function, with records ranging from very simple data cards to reports with more complete information. Exploring different communicative supports, as well as active dialogues would enhance this strategy.

The dissemination of information in the mass media effectively assists the collective intellect in cyberspace and helps combat misinformation and rumors¹⁸. The larger disclosure of official news by institutional representatives, in an objective and transparent manner, induces greater acceptance and participation of the population in facing the pandemic, contributing to community engagement⁵.

The developing of websites exclusively focused on addressing issues related to the pandemic proved to be useful by establishing direct dialogue with users. The communication practices fostered in these spaces can stimulate the flow of elements and information that contribute to decision making, to the construction of networked knowledge, and to the expansion of the forms of communication, aiming to popularize access to science and services^{19,20}. The infodemic, pandemedia, and non-interactive formats of websites result in reduced access to these platforms by the population.

Given the need for social distance, remote relationships have been intensified, with greater use of the Internet for communication. Social media are increasingly being adopted as health communication strategies in the face of health emergencies around the world^{21,22}, and are considered relevant communication and health education tools, which enable the sharing of information and broaden social interaction.

Mobile apps have also been explored as instruments of prevention, diagnosis and management of diseases, configuring one of the strategies where governmental, private and popular digital health initiatives have concentrated investments^{20,23,24}.

These software and virtual platforms constitute important alternatives for the access of users to some services²². Nevertheless, they can also represent barriers to access and exclusion, given the unequal access to technology and/or internet connection, characterizing disparity in the possibilities of participation and social control^{3,8,9}.

In Brazil, events such as the World Cup (2014), the Zika virus epidemic (2015) and the Olympics (2016) have driven the emergence of strategies such as the development of apps, production of epidemiological bulletins, creation of web pages and use of social networks by governments to monitor epidemiological scenarios, inform and guide the population, structure participatory surveillance strategies and promote digital detection



of diseases^{21,25}. In the Severe Acute Respiratory Syndrome (SARS) epidemic (2003), there were few qualified professionals in the area of health communication, as well as the use of communication management tools, which made it impossible to disseminate information quickly and efficiently²⁶.

Despite this, health institutions continued to reproduce a utilitarian, centralizing and functional communication focusing on the transmission of information and not regarding it as a right⁸.

In Covid-19's current landscape, the use of these communication strategies should be understood in all its potential, given their expansion and applicability, as long as there is qualification and dialogicity in their use.

Thematic categories of the strategies used by SUS management

The primary impacts of Covid-19 occur in more vulnerable population groups, due to social, economic, and political issues, closely related to gender, race/ethnicity, and class²⁷⁻²⁹. Regarding social class, certain groups are particularly susceptible to the disease due to inequities such as poor housing conditions, malnutrition, poor environmental sanitation, limited access to health services, among others²⁹⁻³¹. Poor populations are more likely to die as a result of Covid-19, since they are more likely to develop chronic diseases associated with worse outcomes. In general, SUS management communication initiatives do not consider these specific vulnerabilities.

In the framework of surveillance, the model of care is based on campaign actions, with little or no community engagement and disregarding the need for actions directed to the different social segments. The marked presence of communication strategies addressing health surveillance reflects the historically established performance by this area in Brazil, emphasizing actions aimed at the control of communicable diseases, based on cause-effect relationships³².

Facing the feeble presence of the State in vulnerable territories, community initiatives are being conducted in several regions of Brazil, seeking to meet health demands. Crisis offices, popular committees, solidarity articulations, platforms, forums and academic-popular observatories, popular health barriers, internet portals of participatory monitoring are some of the forms that have spontaneously emerged in the communities, given the absence of effective policies^{24,33,34}. It is therefore necessary to create methods and initiatives that enable surveillance to contribute to solving problems and needs in a horizontal, participatory, democratic, and scientifically qualified manner³⁵.

The health surveillance approach in the SES/PE bulletins demonstrates the recognition of the high risk of occupational illness, highlighting the importance of health care for health workers, and the impacts of the pandemic on health systems. This concern is especially relevant in the context of the loss of labor rights observed. The health toll on workers tends to increase in contexts of work degradation associated with the rapid evolution of the disease, representing a major challenge for pandemic preparedness programs and plans^{36,37}, must include protection of their physical and mental health³⁷.

Health care, although present in most of the strategies analyzed, has a bias more toward electoral propaganda and self-promotion of managers and their efficiency, than toward guiding the population. The focus on the expansion of infrastructure and human resources should not override the guarantee of access to services in the Health Care Network.

The weaknesses in the category of Health Education hamper the possibility of the expansion of care, making it difficult to understand the importance of compliance with the guidelines for pandemic control by the population. A transferential education was observed, understood more as a regulatory and penalizing mechanism than an emancipatory one based on the construction of meanings, demonstrating the inability to translate scientific knowledge to popular knowledge³⁸. The non-recognition of the social determination of health and the social contexts makes it impossible to provide basic care that the State should provide to the most vulnerable populations, such as water and soap³⁵.

Pernambuco, by making available materials aimed at vulnerable populations, reveals an attempt to help reduce structural socioeconomic inequalities that have forged invisibilities and demographic-territorial segregations exposed by the pandemic³⁸.

With the infodemic, the abundance of shared information facilitates the dissemination of fake news and makes it difficult to access reliable sources and guidance, posing a threat to coping with the virus and generating anxiety and suffering³⁹.

On the other hand, interaction on web platforms and digital networks is an expanding practice that has contributed to accessing information, facilitating learning, and simplifying time management³⁹. Carrying out health care in the face of an unknown disease accentuated the importance of learning on the job in the daily life of the services. Continuing education in health seeks to structure meaningful learning, seeking to reorient practices to qualify the work process. The wide dissemination of safe information based on scientific evidence in these platforms qualifies the training, given the speed and dynamics of these strategies⁴⁰.

The challenges imposed by the pandemic reveal the need to broaden and deepen the practices of popular education in health, strengthening the critical training of health workers and other social actors in the area (such as social groups and movements), assisting in the creation and improvement of social and community spaces in the territories for solidarity support. Popular education in health is also important to qualify the population's struggle for the right to health, as well as to confront poverty and social exclusion processes intensified by the pandemic^{35,41}.

The adoption of protective measures to contain the spread of the virus requires translation of knowledge for its incorporation into the population's daily life. However, the profusion of false information and the negationism regarding the seriousness of the disease and the non-appropriation of technical guidelines resulting from the inadequate use of information and communication deeply affect the strategy to face the public health crisis and, consequently, the population³⁸.



Quality of communication strategies used by the SUS Management

The clear language seen in most of the strategies makes it possible to bring readers of different educational levels closer by a capillary reach out of the information, allowing constructions that are close to the population's reality, essential to raising awareness³. The more technical language present in the epidemiological bulletins and on the ESPPE website is necessary for planning and improving decision-making, but this language should be accessible, enabling effectiveness in control and prevention actions¹⁶. In the case of the mixed language (simple and technical) present in the MoH site, it can hinder the central meaning of the strategy, not presenting the necessary scope nor simplifying the circulation of information⁴².

The informational model present in the strategies analyzed shows how this communication is verticalized and crystallized, opposing the perspective of community and dialogical communication that brings the population as part of the communicative process. This model ignores the expanded concept of health, which disqualifies the subjects as holders of knowledge and strengthens the hegemonic discourse that sees health in a certain way, as restricted to assistencialism⁴.

For the implementation of effective communication and community engagement strategies, it is necessary to maintain a networked communication with the population to understand and respond to their concerns, attitudes, beliefs, and difficulties in following health guidelines. It is from community engagement that the people's perception of the collective can surface, regardless of educational levels and regional diversity. In this way, the official means of transparent information facilitates collective synergy, being indispensable for confronting Covid-19^{5,18}.

Despite the historical centralization of health communication resources at the Federal level⁹, the municipalities have used the same strategies, but presenting different players in the communication because they are closer to the local context. Nonetheless, they participate in the campaigns carried out by the municipal secretariats, reproducing the institutional discourse and not building collectively^{8,38}. Traditionally, the communicational practices of health management do not interact, nor do they constitute spaces for sharing and negotiation with a plurality of voices and interests, which impedes the autonomy of these citizens in dialogicity and participation⁸. Communication needs to be envisaged and practiced according to the principles and guidelines of the SUS^{3,8}.

These topics reflect a communication built and aimed at a profile of average interlocutors, disregarding political, geographic, and historical processes of the population, ignoring the different social contexts. These differences should be incorporated in the places of interlocution, enabling a discourse in its completeness, decentralizing the place of speech, having a social polyphony to give significance to the power of diversified speech. Then, empowerment means giving voice⁴, by fostering community strategies such as the creation of popular communication agents.



Final considerations

Although communication is one of the fundamental axes adopted by health institutions in the fight against the Covid-19 pandemic, and that they have intensified the use of digital media as communication strategies, it is necessary to overcome the adoption of authoritarian communication practices that are guided by a pragmatic, instrumental, and centralizing approach that is restricted to offering information with the goal of changing practices.

There is a need for greater articulation between the three levels of management of the SUS and the territories of life so that they can adequately address issues that are dear to public health in this pandemic context, such as those related to surveillance, assistance, promotion, and health education.

More than that, to establish mechanisms for the democratic and participatory construction of new processes so that there is polyphony of voices, reverberated through emancipatory community communication, which is a key element for the promotion of comprehensive care and intersectoriality of health practices.

To face the pandemic, the state has the duty to promote quality communication, transparent and inclusive, considering the different population groups, especially the most vulnerable, respecting the human and social right to communication, information, and voice. Community engagement must be prioritized, starting with coordinated action with local leaders, equipment, and institutions, especially with primary care, articulating their actions with community initiatives.

In this sense, we must wage our bets on the creation of popular communication agents, in addition to the strengthening of health agents already working in the territories, for the use of creative and artistic means - analog and digital - articulated with the local culture, and for the consolidation of democratic communication models focused on health emergencies, which must be incorporated and fostered by the institutions.

Health and communication are inseparable rights, and it is essential to create a communication policy at SUS that works in a crosscutting fashion with the other policies, and a greater investment of resources in this area so that the emancipatory character of its strategies can be ensured to face current and future challenges.



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Authors' contributions

Mariana Olívia Santana dos Santos, Bianca Cardoso Peixinho and Aline do Monte Gurgel participated in the conception, design, analysis and discussion of results, and writing of the paper.

Daniella Oliveira Albuquerque Lins, Ana Marília Correia Cavalcanti, Letícia Gabriela Ferreira da Silva, and Lucas Iago Moura da Silva contributed to the collection, tabulation, analysis, and discussion of the data, and writing of the paper.

All authors participated in the approval of the final version of the manuscript.

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Conflict of interest

The authors have no conflict of interest to declare.

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Foi realizada caracterização e análise das principais estratégias de comunicação desenvolvidas pelos três níveis de gestão do Sistema Único de Saúde (SUS) para o enfrentamento de Covid-19 no Brasil. Consideraram-se *websites*, Twitter, Youtube, Instagram e Facebook, coletivas de imprensa, aplicativos e boletins epidemiológicos, totalizando 35 estratégias. Apesar da comunicação ser um dos eixos fundamentais em resposta à pandemia, parte significativa das estratégias não abordou adequadamente as temáticas de vigilância, assistência, promoção e educação em saúde. Observou-se predomínio do modelo de comunicação utilitarista, centralizador e funcional, com foco na transmissão de informações. O Estado tem o dever de promover uma comunicação comunitária e emancipatória, considerando a diversidade de sujeitos, o contexto local e o desenvolvimento de redes comunicativas, respeitando o direito humano e social à comunicação, à informação e à voz, segundo os princípios e diretrizes do SUS.

Palavras-chave: Covid-19. Comunicação em saúde. Mídias sociais. Participação comunitária. Vigilância em saúde pública.

Se realizó una caracterización y análisis de las principales estrategias de comunicación desarrolladas por los tres niveles de gestión del Sistema Brasileño de Salud (SUS) para enfrentar la pandemia de Covid-19 en Brasil. Se consideraron páginas web, Twitter, YouTube, Instagram y Facebook, entrevistas colectivas de prensa, aplicaciones y boletines epidemiológicos, totalizando 35 estrategias. Aunque la comunicación es uno de los ejes fundamentales de respuesta a la pandemia, una parte significativa de las estrategias no abordó adecuadamente las temáticas de vigilancias, asistencia, promoción y educación en salud. Se observó el predominio del modelo de comunicación utilitarista, centralizador y funcional, enfocado en la transmisión de informaciones. El Estado tiene el deber de promover una comunicación comunitaria y emancipadora, considerando la diversidad de sujetos, el contexto local y el desarrollo de redes comunicativas, respetando el derecho humano y social a la comunicación, a la información y a la voz, según los principios y directrices del SUS.

Palabras clave: Covid-19. Comunicación en salud. Redes sociales. Participación comunitaria. Vigilancia en salud pública.