

Article

An Appraisal of Communication Practices Demonstrated by Romanian District Public Health Authorities at the Outbreak of the COVID-19 Pandemic

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Abstract: Communication during an ongoing crisis is a challenging task that becomes even more demanding during a public health crisis. Early in the start of the pandemic, global leaders called upon the public to reject infodemics and access official sources. This article focuses on the communicative aspects of health services management, with a particular focus on the communication strategy of the Romanian district public health authorities during the COVID-19 lockdown, as seen on official websites and social networks. The 15 most affected districts were selected, according to the officially reported health cases. The issued press releases and the posts on Facebook pages show an uneven experience on the part of district authorities in dealing with public information campaigns. In addition, the results of the study indicate a lack of sustainable communication approaches as well as the need of professional training and strategy in dealing with the public health crisis. From a communication point of view, a strategic approach on behalf of the public health sector is crucial to enhance the preparedness of appropriate institutions to act during emergencies and to respond to the needs of the media and the public with timely, correct, and meaningful information.

Keywords: public health; public health authorities; public communication; risk communication; social networks; lockdown; crisis; COVID-19 pandemic; sustainability



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1. Introduction

The ongoing public health threat posed by the COVID-19 pandemic challenged the *modus operandi* of public health authorities, governments, and even international organizations, due to the length and intensity of the crisis. Health is a fundamental right of every human being, as stated in the Constitution of the World Health Organization since 1946. It is also understood as a major element of sustainability; the United Nations 2030 Agenda for Sustainable Development included health distinctively as a goal (SG3), with actions being necessary to “strengthen the capacity of all countries (. . .), for early warning, risk reduction and management of national and global health risks” [1]. However, the year 2020 made the international community aware that the sustainability goals—SG3 included—need rethinking and that addressing the weaknesses of domestic and global governance is a matter of utmost priority. [2]. As Miriam Bodenheimer and Jacob Leidenberger bluntly put it, the lack of ecological sustainability contributed to the coronavirus outbreak, the lack of economic sustainability to its rapid and global spread, and the lack of social sustainability to its severity [3]. The international community tried to make sense of and contain the pandemic, find the appropriate responses, and mobilize all forces to overcome the effects of the multi-level crisis brought on by COVID-19. As the World Health Organization (WHO) acknowledged “humbly”, the fast-evolving situation made it difficult to anticipate the evolution of the situation. The organization also recognized that “there is no one-size-fits-all approach to managing cases and outbreaks of COVID-19” and advised the public to stay informed and follow the lead of healthcare providers as well as national

and local public health authorities [4]. While the full impact of the pandemic on society is still difficult to evaluate, despite the massive mobilization of researchers in all domains to offer responses to the multiple challenges encountered throughout 2020 [5–7], it seems possible to appraise the communication efforts undertaken by public health authorities in keeping the public informed and fostering compliance with the cascading measures adopted to limit the spread of COVID-19. It is important to reflect on the capitalization of this knowledge towards improving health risk communication and ensuring social sustainability in the post-crisis period [3,8]. The lessons learned from prior global security risks show that getting information out to the public in a timely manner is a must, “but so are adequate framings of the illness, stories of the heroic efforts of those on the front line, and galvanizing metaphors that can bind the community together even when the illness is unpredictable and the chances of scientific success are uncertain” [9] (p. 10).

As Jan Servaes highlights [10] (p. 1472), “communication and information play a strategic and fundamental role by (a) contributing to the interplay of different development factors, (b) improving the sharing of knowledge and information, and (c) encouraging the participation of all concerned”. In all areas of sustainable development, including the case of sustainability in the health sector, this works by “facilitating participation: giving a voice to different stakeholders to engage in the decision-making process; making information understandable and meaningful. It includes explaining and conveying information for the purpose of training, exchange of experience, and sharing of know-how and technology; fostering policy acceptance: enacting and promoting policies that increase people’s access to services and resources” [10].

The United Nations and the World Health Organization alike called upon member states to communicate intensively, consistently, and in a timely fashion with the public [11] to fight an infodemic, described as “an over-abundance of information—some accurate and some not—that makes it hard for people to find trustworthy sources and reliable guidance when they need it” [12] and to counter misinformation.

Therefore, our research aimed to identify the amount and type of communication efforts undertaken by the district health authorities to manage the ongoing public health crisis and contain the effects of the pandemic on the district community, while maintaining a meaningful and relevant dialogue with the public via technologically mediated channels.

The communication management of the risk communication of the COVID-19 pandemic is a rich field for understanding the interaction between public relations, health communication, journalism and the public. According to J. Barry, for the influenza pandemic, “the single most important weapon against the disease will be a vaccine. The next important weapon will be communication” [13]. COVID-19, due to the magnitude of the pandemic, already had all the features of a newsworthy event, with intense local implications. It dominated the public agenda, and people all over the world tried to make sense of their lives through the lenses of available information on the measures undertaken to contain the disease. For authorities, as sources of information, leadership and action, it was crucial to make information available both to the public and to journalists, as disseminators of information and partners in shaping the public agenda. Here, agenda-building theory, as a new wave in understanding the shaping of public messages in society, is an appropriate scientific framework [14–16]. As McCombs convincingly states, the “basic agenda-setting role of the news media is to focus public attention on a small number of key issues and topics. Although there are dozens of issues and other aspects of the world outside competing for attention, the news media can cover only that handful deemed most newsworthy” [16]. News concerning the spread of the disease and the measures taken internationally and nationally by far dominated the news cycle at the beginning of 2020.

Information subsidies are often involved in agenda building [17]. The term “information subsidy” generously encompasses press releases, information pieces, speeches and other types of organizational communication tools used by public relations practitioners as ready-made products for the media [15,18]. Most studies focus on agenda building for traditional media, while social media has already changed the realities of the circulation of

information. There is a strong expectation that members of the public have the same access to this information as members of the media, via online newsrooms [17]. This necessity is acknowledged also by the WHO in their insistence regarding the use of all communication channels, including social media sites, to fight the pandemic and bring relevant and correct information to the public [12,19]. Our research aims to enhance knowledge about agenda building through information subsidies like press releases and posts on social media platforms as made available by the Romanian public health authorities during the hottest period of the COVID-19 pandemic, i.e., in the early stages of the crisis in 2020. It fills gaps in the literature and aims at enhancing the body of knowledge regarding crisis and risk communication. We look only at the communication efforts undertaken by the public health authorities, as official sources of information that have the possibility to shape and set the agenda by providing timely, accurate and relevant information.

In the analyzed case of COVID-19, a spatial–temporal contextualization is needed to understand the specificity of public communication outcomes. The disease began as an outbreak in the Wuhan province of China, but it spread rapidly around the globe. The COVID-19 outbreak at the beginning of 2020 took Romania by surprise. Prior global health emergencies of the 21st century, such as the Ebola virus in 2014, H1N1 (Swine Flu) in 2009 and SARS in 2003, although creating public awareness that they lurked in the world, did not affect Romania. As in other societies where large-scale disasters were absent for decades, which is the case in many countries since World War II [20], the communication of risk mitigation measures during a major crisis adds significant challenges. The severe acute respiratory syndrome Coronavirus 2, known as SARS-Cov-2 or Novel Coronavirus 2, and ultimately referred to as COVID-19, is the first major health challenge for Romanian public life. The World Health Organization (WHO) declared COVID-19 a Public Health Emergency of International Concern on 30 January 2020 [4].

On 21 February, the Romanian government took its first COVID-19-related measures, announcing a 14-day quarantine for persons coming to Romania from disease-stricken regions. The first documented case in Romania occurred on 26 February 2020, but it did not stir public concern at the time [21]. However, it soon became obvious that the novel coronavirus had the features of a pandemic, as WHO reluctantly recognized 11 March 2020. On 14 March, after over 100 people had been diagnosed with the coronavirus, Romania had enough reasons for public health concern. On 16 March, President Klaus Iohannis announced his decision to decree a state of emergency for a 30-day period, which was prolonged until 14 May. After that date, Romania entered a state of alert, which meant the relaxation of some of the measures [22].

According to the principle of subsidiarity, the district (judet) level is immediately under the national one. It organizes all public life in the territory from an administrative point of view, including health issues. In Romania, there are 42 district public health authorities (DPHAs), 41 representing districts and one for the national capital, Bucharest. They represent the Ministry of Health at the local level and are responsible for the provision of public health services locally. DPHAs are responsible for the collection of data from the territory, the monitoring of the health of the population and health determinants and the identification of public health needs of communities [23]. The reform of public services in Romania, carried out in the post-communist period, shifted competencies from the central government towards local/regional bodies, but studies show that the burden is perceived at times as overwhelming [24,25].

In times of crisis, public authorities are expected to share knowledge, communicate with relevant audiences, find alliances in society and build confidence [8]. The WHO placed special emphasis on risk communication and community engagement as one of the eight pillars of successfully managing a health crisis [11]. The newly created “Risk Communication and Community Engagement” division of the WHO recommended authorities in all countries to “implement and monitor an effective action plan for communicating effectively with the public, engaging with communities, local partners and other stakeholders to help prepare and protect individuals, families and the public’s health during

early response to COVID-19". The advice was unequivocal: "Make sure that this happens through diverse channels, at all levels and throughout the response" [26] (p. 3). Such channels, beyond discussion, are represented by social media owned by the appropriate authorities. In addition, as activities were now organized remotely and carried out through digital tools, many Romanians used their social media accounts, previously employed mainly for private purposes, to access services, information and labor from home [27].

The challenges brought about by the COVID-19 pandemic have underlined the importance of professional public communication based on correct, timely, comprehensive and accessible information. Social distancing was one of the measures recommended internationally [28] as an effective (though insufficient) means of preventing the spread of the virus. Face-to-face events were reduced to a minimum, and the classical press conferences, a preferred media event in the toolkit of authorities in dealing with journalists to disseminate information, were put to a halt. Only press releases posted on the authorities' websites remained as tools pertaining to the habitual media relations strategy.

This study reports on these aspects, as seen from the institutional websites and from the social media accounts of Romanian DPHAs, from the point of view of the amount and type of content posted to meet the expectations of the general public during the COVID-19 lockdown. The following research objectives were defined:

RO₁: To determine whether there is a correlation between the number of health incidents and information subsidies made available to the public by relevant authorities.

RO₂: To evaluate the communication efforts of DPHAs, expressed by the information subsidies (number of press releases on website and number of posts on social media platforms), from the point of view of timeliness and rhythmicity.

RO₃: To examine the type of content disseminated by DPHAs via social media, from the point of view of ownership (produced in-house vs. share of content produced by other institutions) and triggered engagement (comments, shares).

2. Materials and Methods

The findings of this paper are based essentially on a qualitative research approach, i.e., on content data analysis, although quantitative indicators were used to enhance the results. Data collection took place at the beginning of the pandemic and covered the 2 months of total lockdown in Romania: 16 March–14 May 2020. Our strategy was to analyze the communication efforts of the District Public Health Authorities of the most affected regions. Considering the official information at the time, we selected a sample of 15 regions where the number of patients with specific COVID-19 symptoms kept the attention of authorities and the media (14 districts and the national capital, Bucharest). Drawing inspiration from the occurrence of national media reports in the regions, we switched to the data provided by the National Institute for Public Health for a final selection [29]. The order of presentation herein is based on the number of COVID-19 cases registered in the analyzed region in the first two weeks after the outbreak of the disease: Suceava, Bucharest, Timis, Neamt, Arad, Hunedoara, Brasov, Galati, Cluj, Constanta, Ilfov, Iasi, Mures, Botosani and Vrancea. The order changed in time, with the national capital being at the top, but we maintained the initial choice of presentation in order to follow through with the data in a coherent manner.

As formulated in the research objectives, we monitored the frequency of press releases throughout the sample. For the analysis of website traffic, we chose a popular content marketing platform—SEMrush. It is among the most used platforms of its kind and has a friendly interface that allows for in-depth data collection [30]. The SEMrush dashboard enabled us to gather information about organic traffic, organic key words, the source of visitors on DPHA websites, etc., all of which helped us draw conclusions on the impact of the information posted on their webpages.

Moreover, we identified the existence of Facebook, Twitter, Instagram and YouTube accounts and examined the communication behavior of DPHAs in the social media world. We gathered a corpus of 412 Facebook posts, which was analyzed from the point of view of engagement, focusing on the number of shares and comments per post. Monitoring of the

websites and social media accounts curated by DPHAs was followed by an analysis of the type of content related to COVID-19. Experts acknowledge that “failing to engage users equates with (. . .) no transmission of information from a Web site; people go elsewhere to perform their tasks and communicate with colleagues and friends” [31]. Thus, we also traced the capacity of the analyzed public health authorities to trigger shares, comments, or other types of reaction as a sign of community engagement.

We also compared the communication behavior displayed by the analyzed institutions with the principles of risk communication, as described in relevant professional literature, to draw lessons from a crisis that affected all strata of society, i.e., global, continental, national and local.

3. Results and Discussion

3.1. The COVID-19 Outbreak in Romania

In the first two months of 2020, Romania was only mildly aware of the danger posed by COVID-19. Information in the media appeared in the external news section, and in February some measures were taken to monitor incoming persons from regions already facing the health crisis. The outbreak of the disease in March brought the lockdown, and the communication space was completely dominated by the topic of the pandemic [32].

At the national level, Romania followed the pattern against which the WHO had warned; avalanches of messages concerning public health issues poured out via all available channels. Following the recommendations of the WHO, on 17 March the Romanian Government launched an online platform, www.stirioficiala.ro [33], to channel trustworthy, quality information to whomever sought information beyond issues discussed in traditional or social media. Nationally, the voices during the lockdown (coinciding with the state of emergency period) were those of top officials in the country, i.e., the President, Klaus Iohannis, the Prime Minister, Ludovic Orban, the Health Minister, Victor Costache/Nelu Tataru, and the Secretary of State at the Ministry of Internal Affairs, head of the Department for Emergency Situations, Raed Arafat. Occasionally, other ministers came to the fore to comment on topics from their area of competence (public order, education, foreign policy, labor, economy, etc.), and health experts were called upon to offer clarification regarding the evolution of the disease and the steering of public life. Because face-to-face activities were not allowed during the lockdown, the population switched to remote labor and TV watching. Media consumption grew exponentially, with the press conference organized by national authorities in the first week of the lockdown being watched by almost 6 million Romanians [34]. National media monitoring showed that Romanians started watching TV more than 6 h per day, being exposed to 4000 h of breaking news and 84,000 h of informative TV spots during the lockdown. As for sources of information, half of the Romanian population actively watched news on TV channels, and 47% gathered news from social media sources [34].

Taking the rules of crisis communication as mandatory [35], the central government took upon itself the task of coordinating and filtering communication. Thus, in the first weeks of the lockdown, only central authorities released information on the crisis, to the great surprise and dissatisfaction of other voices in society. Seventeen civic organizations, many of which dealt with journalism, public communication, and information, signed a manifesto in March 2020 to restore access to regional/local information; they succeeded in their endeavors some weeks later [36]. Local voices also took an active part in informing the public, based on official information. For instance, in Timis county, the AntiCovidTM platform was developed, at the initiative of several non-governmental organizations with a civic vocation, to create a partnership dedicated to supporting the efforts of active humanitarian initiatives/campaigns in the region and increasing the degree of public information on health issues [37].

According to Malikhao [38] (p. 99), the sustainability of health is a process of social mobilization empowered by both stakeholders (some of whom can be health communicators) and health communicators from outside, who have empathy toward the stakeholders,

to achieve two goals: first, to engage the people in the community in upgrading their health and media literacy status so that they can make an informed choice on their body, health and health care; second, to build up community capacity and networking with other communities so that people can solve problems related to community health, achieve social justice in health, prevent diseases, maintain well-being, and cultivate health knowledge, good attitude, ethical values, a cosmopolitan worldview, and health behaviors, including advocating for structural change for a local commitment to healthy lifestyle and an accommodating environment.

3.2. The Public Health System in Romania and Its Reaction to the COVID-19 Pandemic—An Overview

The pandemic of 2020 put a serious damper on these two goals, testing the capacity of countries to communicate strategically [39] (p. 14) and of the WHO to effectively manage the COVID-19 health risk.

In Romania, public health is defined by Law 95/2006 as “the organized effort of the society towards the protection and promotion of population health” [40]. Public health services include health promotion, disease prevention and improving quality of life and comprise the following activities: immunization; control and surveillance of diseases and risk factors; monitoring population health and health determinants; measuring the efficiency and effectiveness of health care; the assessment of population needs; health promotion and health education campaigns; occupational health; and environmental health, among others. The National Health Strategy 2014–2020 is still in use, and it includes public health as one of the three main priority areas [23] (p. 93). The coordination for the provision of public health services is the responsibility of the Ministry of Health, which is also responsible for the strategic planning and organization of public health services. Other institutions with responsibilities in public health are the National Centre for Environmental Monitoring of Risks in the Community, the National Centre for Communicable Diseases Surveillance and Control (NCCDSC), the National Centre for Methodological Coordination and Information on Occupational Diseases and the National Centre for Health Status Evaluation and Health Promotion. In addition, six regional public health centers, which are located in Bucharest, Cluj, Iași, Sibiu, Târgu Mureș and Timișoara, function as the regional branches of the National Institute of Public Health (NIPH). The regional centers have mainly methodological and technical roles. At the local level, the Ministry of Health is represented by 42 DPHAs. Their responsibilities include [41] monitoring the health of the population and health determinants; identification of public health needs of communities; performing controls of health institutions; coordinating the implementation of national public health programs at the local level; carrying out sanitary inspection and health promotion activities, etc.

European and international reports on the Romanian health system describe it as hyper-centralized, antiquated, and failing to ensure communication between health information system players [42–45].

These features had an impact on the public communication effort during the COVID-19 lockdown. Duplicated information appeared on websites and communication projects developed by each player, most of the time without ensuring interoperability or cross-fertilization of the initiatives. Traditional media monitoring showed that the main voices in television were President Klaus Iohannis, Prime Minister Ludovic Orban (who went through a period of self-isolation due to exposure to a risk population), Health Minister Viorel Costache, replaced in the middle of the crisis by Nelu Tataru, and the Head of the Department for Emergency Situations Raed Arafat, the four officials whom the population trusted most during the lockdown [46]. Other ministers or top health experts were also invited to the fore, to offer stewardship and guidance for different aspects of life, from individual behaviors to work, leisure and faith-related activities. At times, these voices did not form a coherent view, a feature identified in other countries as well, despite the warning of experts that “any conflicting information carries a risk of harm, but unfortunately it abounds”; the response to the crisis was addressed mainly at national levels in a variety

of ways. Those who analyzed the situation concluded that “the European approach has not prevailed”, but that communication efforts should be consistent and coherent to build public trust as well as to maintain the response capacity of the healthcare system to react: “Where communication is well-structured, staff is more engaged and motivated to work for the sake of better healthcare, and this raises the quality of healthcare as a whole and may improve patient outcomes” [47].

In evaluating Romania’s response to the crisis in its early stages, experts consider that the country “has one of the highest levels of poverty, social exclusion, and restricted access to education in the EU, and any public information campaigns would have needed to consider these aspects” [48] (p. 5). In addition, despite demonstrating an initially strong capacity to contain the COVID-19 pandemic, the Romanian healthcare system showed areas in need of improvement, among which was the “best use of the available resources and channels of communication during an ongoing health crisis” [48] (p. 5).

A terminological clarification is appropriate at this point. Although the COVID-19 pandemic is treated and discussed in terms of crisis, the communication related to the effort of limiting the spread of the disease belongs to risk communication. The terms do not overlap entirely and need clarification. The WHO framed the issue in terms of “risk communication” and announced that it was making 24/7 efforts to provide “public health information and advice on the 2019-nCoV, including myth busters, available on its social media channels (including Weibo, Twitter, Facebook, Instagram, LinkedIn, Pinterest) and website” [12] (p. 2). In this paper, social media is defined as “Internet based applications that allow users to create, exchange, or simply consume user-generated content—that is, content created, developed, and shared by individuals” [49] (p. 173). Examples of social media include, but are not limited to, collaborative projects (e.g., Wikipedia), weblogs (e.g., online diaries), microblogs (e.g., Twitter), video/photo sharing (e.g., YouTube, Instagram), social networking sites (e.g., Facebook), virtual game worlds, and virtual social worlds.

Dennis Wilcox specifies the difference between risk communication and crisis communication, with the first category being applied (explicitly) to (public) health outbreaks or other risk-related topics, and the latter being specific to organizations shaken by events that may threaten the very existence of the organization [50]. His strong advice is that, for risk communication, emphasis should be placed on the “dissemination of accurate information. The communicator must begin early, identify and address the public’s concerns, recognize the public as a legitimate partner, anticipate hostility, respond to the needs of the news media, and always be honest” [50] (p. 300). For crisis communication, the crisis management plan needs activation, and reparatory measures should be part of the lessons learned from the whole process [50] (p. 300). Other authors [51,52] do not make the distinction using such nuances, including risk communication under the broader umbrella of crisis communication. The lessons Mats Eriksson draws from practice, for instance, put together risk and crisis communication and assess that “despite the powerful digitization of society in recent years, the development of social media, and the fast-growing body of research concerning social media crisis communication, the overall lessons identified here still primarily seem to be about actions like the need for pre-event planning, partnerships with the public, listening to the public’s concerns, and understanding the audience’s need for credible sources” [51] (p. 541). Ruhert Genc, in a recent paper, highlights the fact that “in any sustainable plan or strategy communication plays a vital role” [53] (p. 511), while Ericsson, based on American experiences and calling for more studies in other geographic regions, states that the “new social media landscape for crisis communications seems to work much like that of the old media society”. His recommendation, among others, is to bridge the gap between research and practice and enhance organizations’ reaction capacity to crises on the basis of evidence-based lessons and/or advice that would deal with all channels of communication. A much-quoted researcher for crisis communication, Timothy Coombs, sets forth theoretical clarifications for the stages and typology of crises, advising professionals to be present, timely and polite in communicating with the media and the public. He warns that “the Internet is many communication channels, not just one. These

channels include websites, discussion boards, blogs, microblogs, chat rooms, Listservs, image sharing, and social networking sites, to name but a few. Internet communication channels emphasize the interactive and interconnected nature of the Internet" [52] (p. 34). As opposed to private sector services, where these media are already heavily used, "social media are evidently underused by audit institutions as public service providers, both on general and on specific topics" as revealed by a recent study on European institutions [54].

Our study also gathered information about the variety of channels used for communication with the public by the relevant authorities involved in crisis management at a national level. The analysis of social media buttons displayed on their websites revealed a lack of coordination. Our conclusion is backed by the following data:

- The Romanian presidency has on the website buttons for Facebook and Twitter.
- The Romanian Government has only a Facebook button.
- The Health Ministry is present on Facebook and YouTube.
- The Department for Emergency Situations has the largest number of social media channels: Twitter, Facebook, Instagram, YouTube and Google Groups.
- The Ministry of Interior has accounts on Facebook, Twitter, Instagram, YouTube and Flickr.
- The National Center for Surveillance and Control of Communicable Diseases has no social media channels.

The online platform, www.stirioficiala.ro, (accessed during our research from March 2020 throughout the lockdown period, up to May 2020) towards which national authorities guide the public for verifiable, correct information, has buttons to help the public sort out fake news, but has no associated Facebook, Twitter or YouTube page. They only invite visitors to subscribe to their newsletter. We find this insufficient, as we consider that a Facebook page with posts conveying official messages would have helped the spread of correct and useful information.

Such a variety of styles and channels fails "to make the communication more sustainable" [54] (p. 2500), does not serve the interconnectedness of Internet resources, and fails to capitalize on existing resources and messages and help keep the public informed and trusting of authorities' capacity to contain the health risk situation. In addition, in the analyzed period, three top government positions had a change of occupant, due to resignation or being removed, mainly for failure of properly communicating the measures undertaken to limit the spread of COVID-19. Thus, the Health Minister, Viorel Costache, lost his portfolio exactly one month after the declaration of the state of emergency. The same happened to Dr. Adrian Streinu-Cercel, who chaired a special committee created at the level of the Health Ministry, though his removal occurred shortly after the state of emergency ended. In the monitored period, six of the directors of DHAs resigned or were removed from their position, all of this resulting in uneven efforts to communicate on COVID-19 measures. Against this background, we carried out our research. The presentation of the national level is necessary for understanding some issues at the district level, where the highly centralized system functions with constant reference to the leadership provided from the top of the authoritative pyramid, as observed also by other researchers who deal with Romanian health system topics [25] (pp. 331–359).

3.3. District Public Health Authorities and Their Communication Behavior during the COVID-19 Lockdown

At the district level as analyzed in this paper, research indicates that the information posted on the websites of the District Public Health Authorities (DPHAs) was mainly top-down, based on the official press releases provided by the Ministry of Health, the Ministry of Internal Affairs through the Strategic Communication Group, and the National Institute of Public Health (NIPH) through the National Center for Surveillance and Control of Communicable Diseases (NCCDSC).

3.3.1. Correlation between the Number of Health Incidents and Information Subsidies

Our research aimed to determine whether there was a correlation between the number of health incidents and the amount of information communicated on the media section of institutional websites and/or disseminated via social media channels. Figure 1 highlights the fact that no such correlations can be traced, and that in some cases exactly the opposite behavior can be seen. For example, the most problematic districts—Suceava and the national capital, Bucharest—had no Facebook page during the analyzed period and posted only a couple of press releases. Furthermore, the highest number of press releases was published on the webpage of the DPHA for Botosani, which was the least infected at the beginning of the lockdown period. Therefore, our assumption that the efforts to keep the community informed would be enhanced in the most affected regions was partially invalidated. Further findings point to a reluctance to communicate.

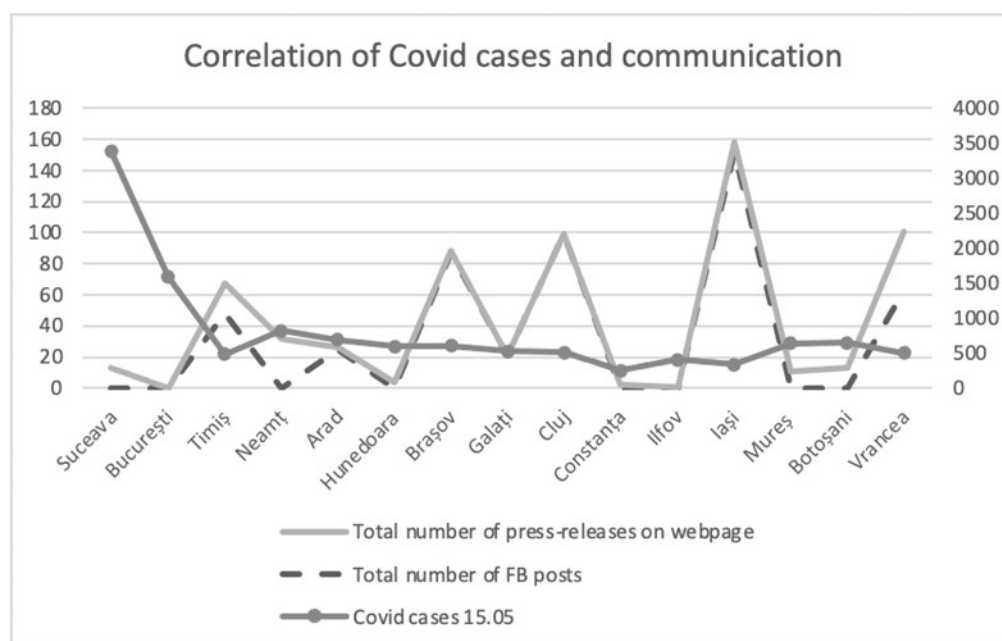


Figure 1. Reported COVID-19 cases vs. number of information subsidies (press releases and social media posts). Note: FB = Facebook.

It is worth mentioning that the DPHA webpage for Bucharest was very new and had no press releases available prior to 18 May, which was outside the state of emergency period analyzed. Thus, there was no traceability regarding the issued press releases or public announcements made in the timespan between 16 March and 14 May 2020. The fact that the Facebook page of the District Public Health Authority in Bucharest was created on 16 May also does not give tangible evidence regarding the way communication was handled throughout the ongoing crisis. The results, however, pointed us towards further analyzing the communication instances produced by these DPHAs.

The literature review and WHO recommendations highlighted the importance of communication for risk management and the positive impact triggered by the use of various platforms in public communication. Experts point to the fact that “it is getting difficult to be transparent, engaging and satisfying other stakeholders without digital platforms, artificial intelligence, innovative software, mobile applications, and video advertising. Moreover, the society and key strategic partners bit by bit set higher communication standards as well as expectations towards civil service experts and their communication style” [55]. Capitalizing on the above, and given the data available for the study, we took a closer look at the webpages of the 15 DHAs analyzed and aimed to identify the following:

- the number of press releases published throughout the lockdown period;
- the number of COVID-19-related press releases from the total amount of issued press releases;
- other means of helping the public access the correct (official) information;
- the importance given to social media, i.e., the presence of social media buttons on websites and platforms, towards which the public was directed;
- the changes in user behavior regarding the use of DPHA websites, i.e., an increase in traffic, as reflected by online analytics tools.

The number and type of press releases is addressed in Figure 2. It shows that, throughout the analyzed period, most press releases issued tackle the problem of COVID-19.

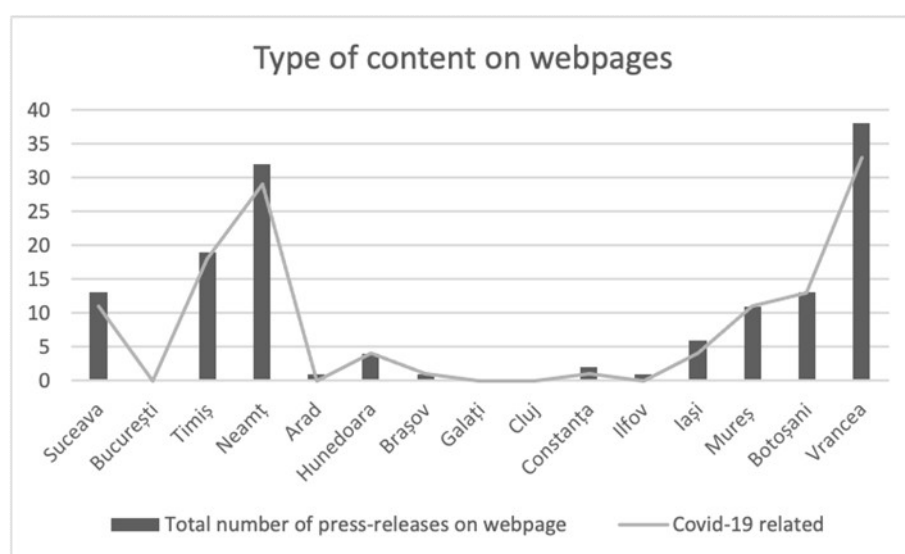


Figure 2. Number of press releases on DPHA webpages.

3.3.2. Assessment of Rhythmicity in the Communication Effort of DPHAs

When verifying whether the district authorities sought other means of informing the public, we were interested in finding out if essential information about COVID-19 was visible and accessible in other forms, like dedicated sections on the website or easy-to-understand infographics.

The webpage of the DPHA in Hunedoara drew our attention. Even if the number of press releases issued in the state-of-emergency months (March, April, May) was small (four), we could not ignore the structure of the homepage, which was well adapted to answer most questions about COVID-19 (self-isolation, quarantine and isolation, protection, myths, shopping, public transport, etc.). Furthermore, the website had in its main menu a button labelled “COVID-19”, which gathered all official statements on the pandemic as published by the district authority. Unfortunately, our research could not determine the time at which that information was published on the website and whether it was available to the public before 14 May.

We discuss distinctively the webpage of DPHA Cluj, a multi-ethnic district, which mentions the possibility of accessing the information in English and French (however, the buttons failed to provide information in these languages). We found this example interesting as, on the one side, it showed the vision of the team that created the website, but on the other side, revealed the poor implementation of the project and, we dare say, a limited interest in addressing the needs of that particular community, despite the WHO recommendation to address the communication information needs of minorities (for instance [56], expats and other groups of stakeholders).

Concerning the importance given to social media by the 15 analyzed DPHAs, the research revealed the following:

- Nine out of the 15 webpages did not display any social media button.
- Three of the pages had a Facebook button, but it was not active, so the visitor of the website was not redirected to the Facebook page.
- Only three webpages had an active Facebook button.

The results of the analysis are presented in Figure 3 below.

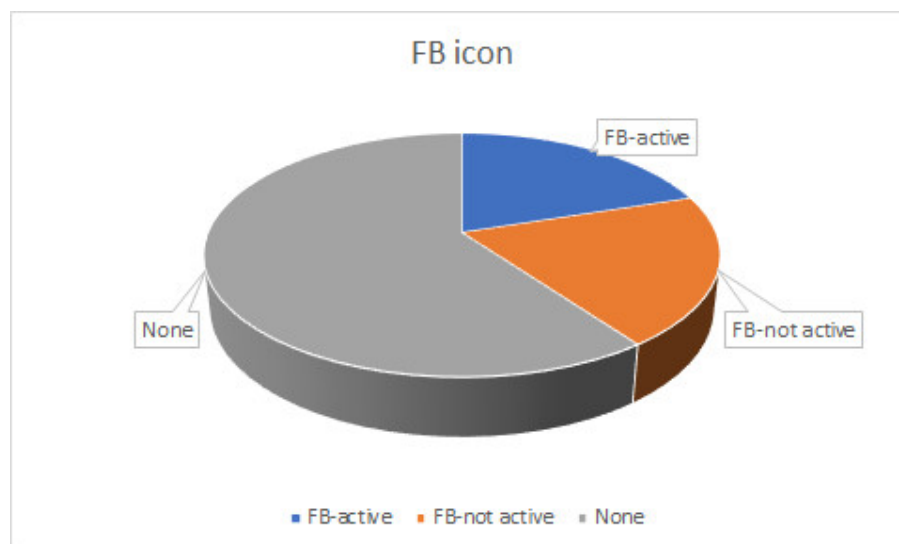


Figure 3. Signs of social media channels on institutional websites.

The case of the Brasov, Cluj and Iasi districts was interesting, as the DPHAs in these districts had the three most active Facebook (FB) pages (as can be seen in Figure 4), but there was no FB icon on their website. This raises the question of in-house coordination of communication efforts.

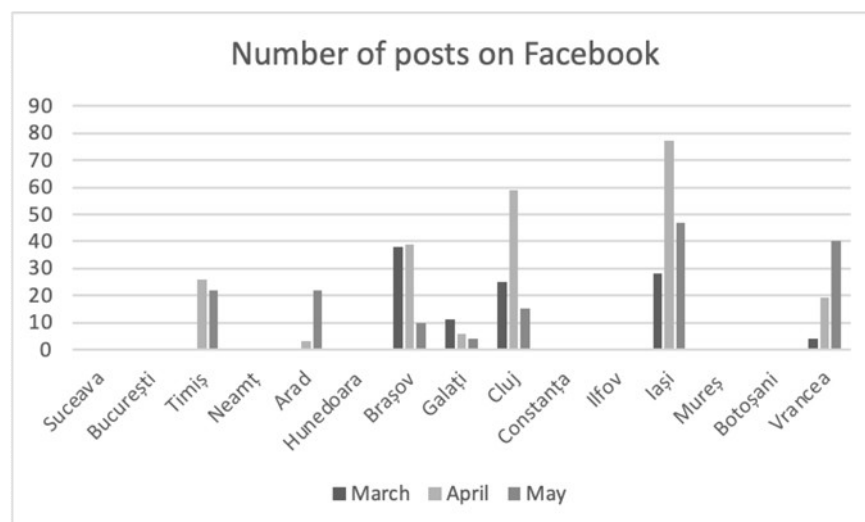


Figure 4. Number of COVID-19-related posts during the monitored months.

On the other hand, DPHAs from Constanta and Botosani districts integrated a Facebook button on their websites, even though no such Facebook page existed. Bucharest is the only case in which the Facebook button and the Facebook page existed but were not linked. The website of the DPHA in Bucharest also had an inactive Twitter icon.

Since Facebook proved to be the social media channel of choice, we present the results of the communication effort of DPHAs via this type of page in Figure 4.

We want to highlight the fact that the Facebook page of DPHA Arad was created on 30 April, and throughout the rest of the 16 lockdown days, it showed an intensive communication effort, with more than one post per day. The Timis DPHA displayed a similar pattern, with a Facebook page created 16 days earlier than Arad, on 14 April. As mentioned before, DPHA Bucharest also made the decision to create a Facebook page, but it was operationalized on 16 May (a day after the end of the state of emergency). Therefore, its activity was not relevant for the current research.

The changes regarding the traffic on DPHA websites were analyzed with the help of SEMrush, an online visibility management and content marketing platform [30]. The results showed that nearly all web traffic was organic and generated by search engines (more than 95%), which was not surprising as DPHA websites were not very well known before the pandemic. However, our research revealed an unexpected trend in users' behavior, as in all analyzed cases we found little or no relevant increase in traffic on the websites of District Public Health Authorities between 16 March and 14 May. An increase in traffic could be seen only towards the end of the lockdown period, and it continued to grow, with a peak in June and another in October–November, as can be seen in Figures 5 and 6.

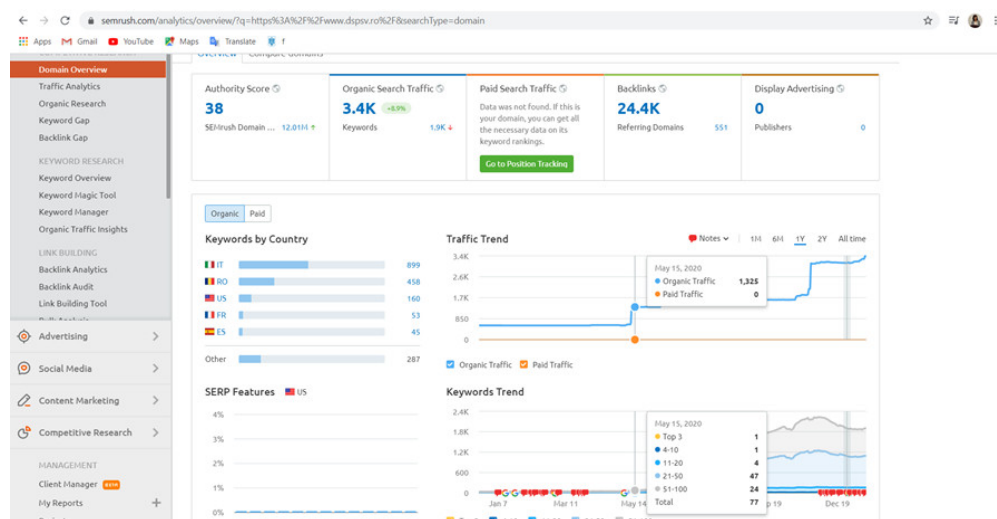


Figure 5. Traffic on District Public Health Authority (DPHA) Vrancea website.

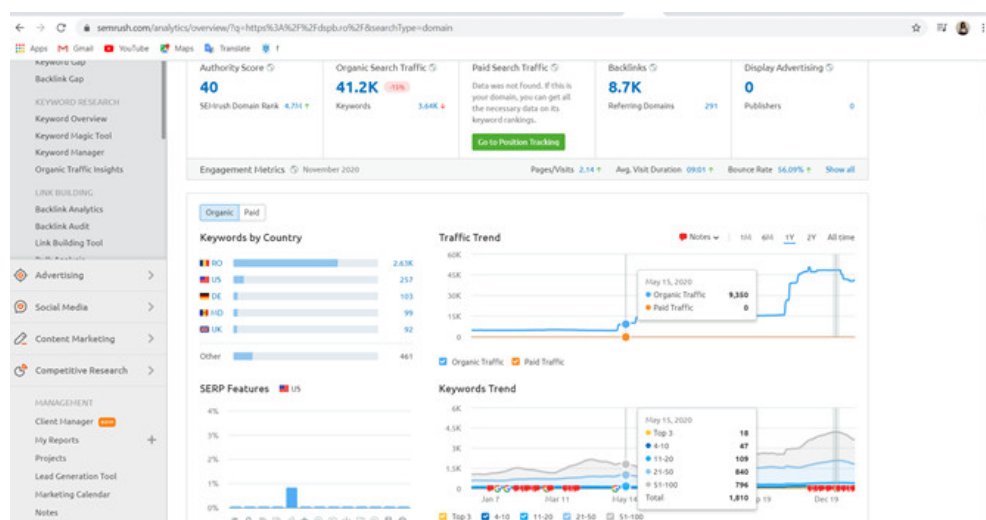


Figure 6. Traffic on DPHA Bucharest website.

We believe that the results are an indicator of media usage habits, and that Romanians still show a preference for television and centralized official communication. It may also

mean that the information needed was available on other websites, which are not subject of this research.

3.3.3. Type of Content Disseminated by DPHAs via Social Media Accounts

Our third research objective was to examine the type of content disseminated by DPHAs via social media, from the point of view of ownership (produced in-house vs. share of content produced by other institutions) and engagement (comments, shares). Figure 7 sums up the results of our analysis concerning the type of content posted on DPHA Facebook pages.

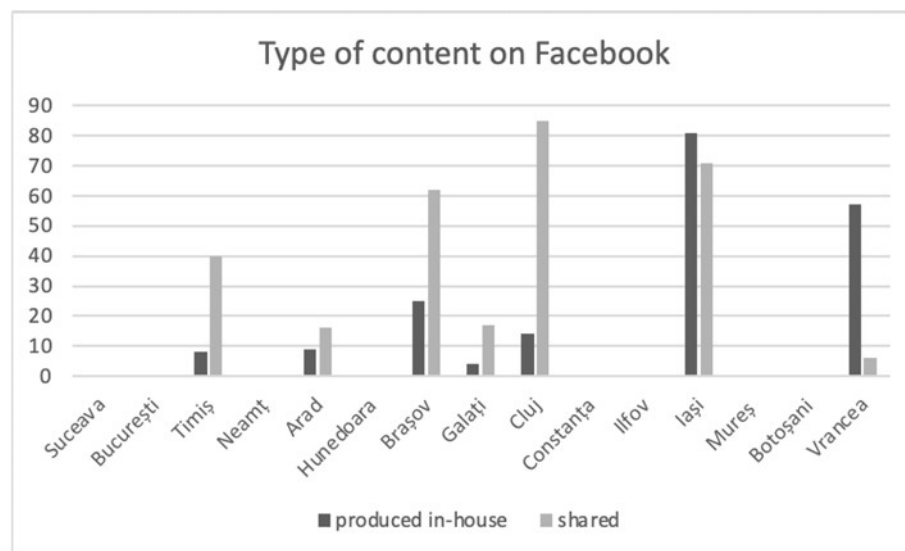


Figure 7. Type of content posted.

Additionally, we found a tendency of local authorities to share the data communicated by the Strategic Communication Group and the Ministry of Health, without disseminating local data, in five out of the seven active Facebook pages.

In addition, we highlight the Vrancea DPHA Facebook page, which displayed a communication approach totally different from the rest in the sample. Almost all the posts were adapted for local audiences, and besides the essential press releases, they referred to decisions made by Vrancea Prefecture, promoted local COVID-19 initiatives, presented the way in which lockdown regulations were implemented, etc.

The most active Facebook page analyzed was that of the District Public Health Authority in Iași, with a total of 152 posts between 16 March–14 May 2020. As in the case of the Vrancea district, the amount of content produced in-house surpassed the shared content. Particularly impressive was the attention given to design, not only to content. For example, they published data about the evolution of COVID-19 cases in the format illustrated by the infographic bellow (Figure 8), or they illustrated relevant collaboration with original photos, proving a professional approach aligned to web 2.0 affordances.



Figure 8. Example of use of infographic on Facebook page of DPHA Iasi.

Such an approach to information is rare, even among the national authorities in charge of public health responsibilities. In the example above, the post even includes the hashtag #staiacasa (#stayathome), a rather popular hashtag at the time [57], and other useful information.

Beyond monitoring the number of posts on the DPHA Facebook pages, we analyzed the engagement displayed by the followers. The results are presented in Figure 9.

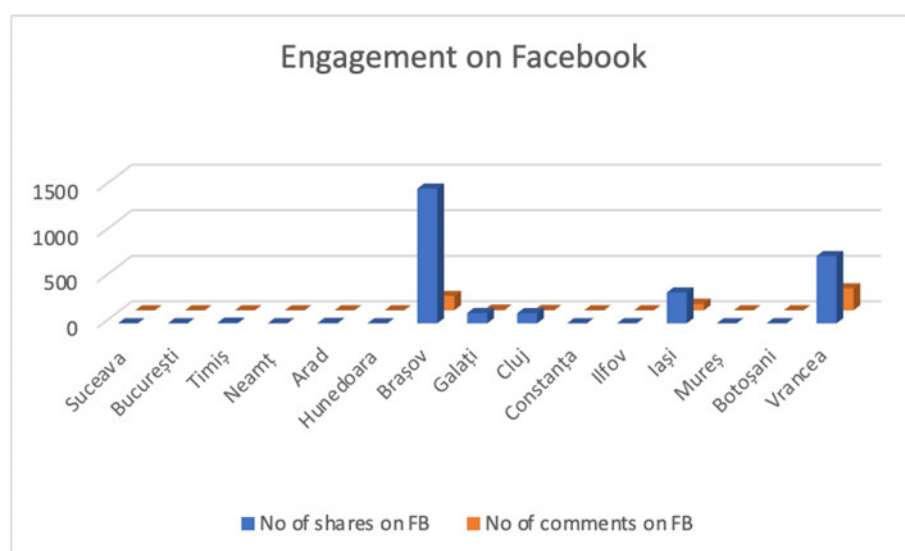


Figure 9. Engagement of Facebook pages' followers.

The behavior of Facebook users was very uneven. In most cases there were no or few reactions to the posts. However, we encountered a few exceptions.

For example, DPHA Brasov held the record for the most shared post. As can be seen in Figure 10, the information posted at the beginning of the lockdown (18 March) was

shared 871 times. It contained contact information that people lacked at the beginning of the pandemic.



Figure 10. The most shared post from a DPHA Facebook page.

The next most shared post was one from Vrancea’s Facebook page (16 April, 135 shares), and it contained information about the fact that testing with an RT-PCR device had begun within DPHA Vrancea.

We would also like to point out that, in the case of DPHA Iasi, almost all posts were shared by a person called “Madalina M.H”. In about half of the posts, she was the only one sharing the information. This practice is not unknown and helps boost the impact of the main Facebook page, but it is not an indicator of real engagement. Most probably, once that person changes his/her job, (s)he will no longer share the content posted on that particular Facebook page.

Another indicator of engagement lays with the comments received for the published information. Our research showed that the majority of posts received no reaction, and when comments were made, they were mostly negative, relating to negative experiences regarding communication with or by the District Public Health Authorities.

Again, we identified an exception to the general behavior: the post from 17 April by DPHA Vrancea received a total number of 116 comments and 84 shares. Almost all followers wrote negative comments to the information posted, with some being impolite and even furious (“You really are not ashamed?”, “Who should we trust in, when everything is done on political criteria?? All thieves!!!”, etc.). The post provided details about the way in which the newly acquired testing equipment was proposed to be used, and thus showed that it was really difficult for common people to gain access to the services.

4. Conclusions and Lessons Learned

We resonate with the conclusions of Woulter Jong that healthcare organizations and institutes need to establish trust and engage actively and positively with stakeholders [58]. Once the crisis is over, the quality of the response and the management need to be discussed [19,58]. Our research is an attempt to offer an evaluation of the healthcare authorities at an intermediate stage, while the crisis is still unfolding.

The COVID-19 pandemic put a stress on all walks of life and on all types of organizations. The Romanian DPHAs, as part of the public sector at an intermediate level, are faced with multiple challenges and expectations. It falls on them to respond in a timely and massive manner to public concerns. However, the assumption on which we based our first research objective was partially invalidated by the analysis. The fact that there is no correlation between the severity of the crisis and the information subsidies could lead us to state that efforts to address the situation were not taken locally. Yet, the fact that two Facebook pages were created in the middle of the lockdown period (Timis, Arad), and one immediately after (Bucharest), suggests that local teams were aware of their responsibility and tried to get closer to the public via social media. It was “on-the-job” training and “learning by doing”.

The type of content posted on Facebook is also an indicator of strategic communication with the public. Roughly one third of the content was produced in-house, with only two districts having more in-house content than shared content. An in-depth analysis showed that the “courage” to put a mark on the posts grew with experience, as most FB pages were no older than one year, except for Iasi and Vrancea, which were created in 2017 (31 August and 6 November, respectively).

We can conclude that there was no clear communication strategy valid for all DPHAs and implemented at a national level. In addition, there were also no clear risk management and crisis communication procedures shared among public authorities. The spokespersons of the District Public Health Authorities analyzed were not visible during the crisis, despite handbook recommendations for crisis and/or risk periods. The task of communicating with the public was assumed by often underprepared directors, taking the stand and generating additional communication crises, a situation that in many cases cost them their positions. Romanian public health officials failed to use the situation of “lockdown and standstill as a window of opportunity to change direction and prevent future crises” and thus failed to turn towards sustainable communication strategies [3]. While communication efforts were not negligible, a certain hesitation and lack of mastering the rules of risk/crisis communication were encountered in the analyzed sample [3,52]. Not only were the content and timeliness of communications important, but also the formats and design.

In accordance with the literature review, social media platforms emphasize the importance of design in rendering the message. Considering the data collected, we assume that older Facebook pages mean better communication skills and exercise for those involved. However, examples of digital skills and organic integration of available tools were rarely identified in the analyzed Facebook pages.

For an emerging infectious disease such as COVID-19, various forces involved in the interactions between the public authority bodies, society, and the news media could lead to strengthening the fabric of society, building unity and solidarity. This study does not examine all the intertwined factors and relationships mentioned above. The study shows, however, that communication efforts were rather chaotic and lacked coherence and coordination, despite apparent efforts to channel the public opinion towards a unified reaction to the rising risk of spreading disease. Despite WHO recommendations [11], the regional level authorities were entrusted to communicate with the public late in the game [36] and when given the chance, they lacked the exercise and the courage to mount an energetic response to the many questions posed by citizens concerning their well-being, recommended courses of action and possibilities to control their own health issues, as seen from the comments to the posts on the Facebook pages under DPHA authority.

COVID-19 had, in the context of this study, at least two major effects. First, it made the international and the local communities aware that the natural world can take everyone by surprise, and that in envisaging a (better) future, a “stop and go” strategy can be the answer to the many challenges posed by the (current) crisis [8]. Second, it tested the reaction capacity of public systems to address major crises on many levels, the communication level included. For the Romanian health system, the initial communicative response was confusing and timid. Public health authorities at the national level dealt with global

information, while locally, where incidents of disease spreading were reported, the relevant authorities failed to provide their share of information and take part in agenda building. Post-lockdown, the communication improved, proving that lessons were learned, and that reaction capacity is growing [7].

5. Limitations of the Study

This study has several potential weaknesses. First, the analyzed institutional websites do not present strategic plans for communication issues related to risk communication in general, and to the 2020 pandemic as a distinct case. Interviewing media officers or spokespersons did not prove to be a successful enterprise; thus, there is a necessity to supplement data with comments from the people in charge of communication, but only when the crisis lessens in power. Second, we analyzed only 15 out of the total number of DPHAs, based on the early-stage situation of the pandemic outbreak. No centralized data are provided on the official websites of central authorities. Even the Health Ministry, which presents the table with the DPHAs, does not allow landing on the respective webpages. In addition, the crisis is ongoing, leaving appreciations on the success or failure of communication strategies to a post-crisis period, when reflection will be welcomed and possible. Further research should also be oriented towards analyzing the communication style of the posts, visibility in the media, changes in communication approaches, etc., thus exploring the behavior of media, the major partner in building the communication agenda for the COVID-19 pandemic.

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