

HEALTH COMMUNICATION IN TIMES OF PANDEMIC: THE PERSPECTIVE OF PORTUGUESE NATIONAL HEALTH SERVICE USERS

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ABSTRACT

The covid-19 disease, caused by infection with the novel coronavirus (SARS-CoV-2), has introduced numerous global health communication challenges. The need for behavioral change, such as mask-wearing, hand washing, or social distancing, has become imperative to prevent the spread of this disease. Primary health care, due to its population coverage throughout the Portuguese territory and almost free of charge, plays a central role in health care provision, being the preferred contact between people and health services. The main objective of this study was to analyze, from the perspective of users of the Portuguese national health service (NHS; Serviço Nacional de Saúde, SNS), the contribution of the health center clusters, institutions responsible for primary health care in health communication regarding covid-19. Data were collected by online questionnaire from 904 users of the national health service residing in the 18 districts of Portugal between December 2020 and January 2021. Our research confirmed that health center clusters were the source of information the least sought after by users to learn about covid-19. Participants in this study also revealed that they had not received any information about the new coronavirus from their health center (80%), although they wished to have been contacted, preferably by email (87.2%), phone/mobile (36.5%), or mail (20.2%).

KEYWORDS

communication for health, primary health care, health center clusters

COMUNICAÇÃO PARA A SAÚDE EM TEMPOS DE PANDEMIA: A PERSPETIVA DOS UTENTES DO SERVIÇO NACIONAL DE SAÚDE

RESUMO

A doença covid-19, originada pela infeção com o novo coronavírus (SARS-CoV-2), introduziu numerosos desafios globais de comunicação para a saúde. A necessidade de mudança de comportamentos, como a utilização de máscara, a higienização das mãos ou o distanciamento social, tornou-se um imperativo por forma a evitar a propagação desta doença. Os cuidados de saúde primários, pela sua abrangência populacional, em todo o território português, e quase gratuidade, desempenham um papel central na prestação de cuidados de saúde, sendo o contacto preferencial entre as pessoas e os serviços de saúde. O objetivo principal deste estudo foi analisar, na perspetiva dos utentes do Serviço Nacional de Saúde, qual o contributo dos agrupamentos de centros de saúde, instituições responsáveis pelos cuidados de saúde primários, na comunicação para a saúde a propósito da covid-19. Os dados foram recolhidos por questionário

online a 904 utentes do Serviço Nacional de Saúde, residentes nos 18 distritos de Portugal, entre dezembro de 2020 e janeiro de 2021. A nossa pesquisa confirmou que os agrupamentos de centros de saúde foram a fonte de informação menos procurada pelos utentes para adquirir conhecimento sobre a covid-19. Os participantes neste estudo revelaram também não ter recebido qualquer informação sobre o novo coronavírus por parte do seu centro de saúde (80%), embora desejassem ter sido contactados, preferencialmente por email (87,2%), telefone/telemóvel (36,5%) ou correio (20,2%).

PALAVRAS-CHAVE

comunicação para a saúde, cuidados de saúde primários, agrupamentos de centros de saúde

1. INTRODUCTION

The new coronavirus, SARS-CoV-2 (severe acute respiratory syndrome), causes the infectious disease designated by the World Health Organization as covid-19 (Gorbalenya et al., 2020). This virus is directly transmitted through contact with an infected person, through “droplets containing viral particles that are released from the nose or mouth of infected people when they cough or sneeze, and can directly reach the mouth, nose, and eyes of anyone nearby” (Direção-Geral da Saúde, n.d., Como se Transmite? section). Transmission can also occur indirectly through contact with contaminated surfaces and objects (Direção-Geral da Saúde, n.d.).

On March 11, 2020, the World Health Organization formally declared the new coronavirus crisis a pandemic. As it evolved, it became urgent to ensure that credible, simple, and helpful information was available and accessible (The Lancet, 2020) as a way to combat “infodemic” — “the overabundance of information - some accurate and some not - that occurs during an epidemic. It can lead to confusion and ultimately distrust in governments and the public health response” (World Health Organization, n.d., para. 1). The infodemic spreads to people in a similar way to an epidemic, through digital information systems, such as social media, or in face-to-face contact, causing increased difficulty for “people to find trustworthy sources and reliable guidance when they need it” (Tangcharoensathien et al., 2020, Abstract section).

Last year, covid-19 introduced numerous global health communication challenges, including the need to disseminate helpful information about the new coronavirus (King, 2021); the overflow of content on this topic from various information sources (Finset et al., 2020); the uncertainty about the spread of the new virus (White et al., 2021); the increase in false information circulating on social media (Ratzan et al., 2020) or the lack of clarity in messages about changing behaviors, often contradictory (Noar & Austin, 2020).

Although health communication is only one “part of the overall solution to change the behaviors of millions of people to contain the spread of SARS-CoV-2, it is an indispensable part that will determine the success or failure of the pandemic response” (Nan & Thompson, 2020, p. 1706).

In Portugal, it is the responsibility of the health center clusters (agrupamentos de centros de saúde, ACeS), services integrated into the Portuguese national health service (NHS; Serviço Nacional de Saúde, SNS), to ensure people's first contact with health care provision (Decreto-Lei n.º 28/2008, 2008). Due to their population coverage and being almost free of charge, they should be at the right place to act for the necessary behavioral change (Peralta-Santos et al., 2018).

However, a study conducted in the first half of 2020 revealed that these institutions responsible for primary healthcare in Portugal were the source of information, the least sought-after by users to learn about covid-19 (Garcia & Eiró-Gomes, 2020a). This survey also indicated that a significant percentage of Portuguese respondents (84%) did not receive information from their health center about the covid-19 pandemic.

With this new survey, conducted in the second half of 2020, we intend to understand how the ACeS communicated information regarding the covid-19 pandemic to encourage disease prevention from the perspective of NHS users. We also intend to identify whether the ACeS are considered, by users, a reliable and helpful source of information. This study also identifies the NHS users' level of concern regarding the new coronavirus and their knowledge about the prevention measures to be adopted.

2. HEALTH COMMUNICATION AND COVID-19

In the last decades of the 20th century, numerous communicable diseases emerged, such as severe acute respiratory syndrome in 2003, the H1N1 influenza pandemic, in 2009, ebola in West Africa, between 2014 and 2015, the zika virus syndrome, between 2015 and 2016, or the yellow fever outbreak in several African countries, in 2016 (World Health Organization, 2018). Covid-19 was not the first outbreak to spread rapidly during the "media age", so health organizations were better prepared to communicate about it (Melki et al., 2020).

The World Health Organization (1998) defines health communication as a critical strategy for disseminating information about health-related issues through the media or other technological innovations. One of its main objectives is to influence the different audiences towards change at the level of knowledge, attitudes, and behaviors to improve or maintain their health (Schiavo, 2014). For this reason, communication plays an integral role in health care delivery (Thomas, 2006) by promoting risk-reducing behaviors through messages that shape the audiences' attitudes (Nan & Thompson, 2020) and facilitate the way they deal with uncertainty and fear (Finset et al., 2020).

Health behavior can be described as any activity undertaken by a person to promote, protect, or maintain health (Nutbeam, 1986). This behavior may be adopted intentionally to promote or protect health, or it may be adopted regardless of the health consequences it may have (World Health Organization, 1998).

Behavioral changes to combat the spread of the new coronavirus are well known: wear a face mask, wash hands regularly with soap and water or disinfect with a 70% concentration alcohol-based solution, cough into a disposable tissue or elbow (respiratory

etiquette), maintain physical distance between people, clean surfaces and equipment (Direção-Geral da Saúde, n.d.).

However, while the messages are simple, it does not mean they are easy to implement. “Even if we all had the same correct information, behavior change would still be challenging” (Finset et al., 2020, p. 874). The same view is shared by Noar and Austin (2020):

while frequent hand washing was a fairly standard behavior with which the public was already familiar, communication around the new key behaviors to prevent viral spread - physical distancing and masks - was unfortunately full of mixed messages and contradictions. (p. 1735)

The general information about the covid-19 pandemic has been one of the main challenges for health communication due to its excessive amount, uncertainty, or falsity, which is usually intentional (Vraga & Jacobsen, 2020). This last type of information, on the one hand, questions and contradicts the communication developed by the authorities and can “lead to a lack of trust in the institutions” (White et al., 2021, p. 218), especially when its source is not official. On the other hand, some situations, particularly in the United States, originated from the authorities’ ineffective communication that generated “great confusion and misunderstandings” (Kim & Kreps, 2020). Just recall U.S. President Donald Trump’s recommendation for the ingestion of bleach as a covid-19 preventive measure.

To combat covid-19-related misinformation, Hornik et al. (2021) recommend that campaigns to promote coronavirus protective behaviors should emphasize the respective benefits rather than debunking false claims unrelated to the disease.

Renata Schiavo (2020) also suggests that communication can contribute to combating misinformation if those most affected by the pandemic are involved:

communication can greatly contribute to addressing misinformation. To do so, we need a paradigm shift that involves those who have been most affected by the pandemic — such as low-income communities, communities of color, the elderly, and other marginalized and underserved groups — in the design of our communication efforts. Improving health and media literacy, as well as civic literacy and helping everyone understand the impact of information and policy on their lives, is also critical to this paradigm shift. (pp. 73–74)

Thus, following Schiavo’s (2020) thought, covid-19 made it evident that the low health literacy of the population is an underestimated problem worldwide (Paakkari & Okan, 2020), despite being one of the major concerns of experts over the last 20 years (Finset, 2021).

Portugal is the country with the lowest percentage of people with an excellent level of health literacy (8.6%), compared to the countries participating in the European Health Literacy Survey (Espanha et al., 2016).

With regard to health information, as an example, some authors have warned that people with an inadequate level of health literacy may not be able to understand information, despite having access to it adequately. In situations where they do not intentionally seek the information, it may be provided by the media or any other person they communicate with (Ishikawa & Kiuchi, 2010).

In the specific case of the new coronavirus, according to White et al. (2021), “levels of health literacy in communities suggest that understanding of the concept of risk is likely to be poor, and contribute to a sense of uncertainty and confusion” (p. 218).

Understanding information using, for example, terminology that is accessible to all can help people understand the reasons behind the authorities’ recommendations and reflect on the consequences of their actions (Paakkari & Okan, 2020). Thus, levels of health literacy directly influence the behavior of the population:

if there is no high level of health literacy, the population (or the individual as an autonomous citizen) will not know how to prevent a disease, how to support their treatment, how to seek available support and help, among other aspects. (Eiró-Gomes & Atouguia, 2012, p. 107)

The transmission of correct and reliable information is, however, only “the first step that leads to a change in behaviors; many others are still necessary” (Eiró-Gomes & Atouguia, 2012, p. 107) such as people’s empowerment (Nutbeam, 2000).

In the same line of reasoning, for the public to proactively act in the course of change for the benefit of their health, it is necessary, as recommended by Mafalda Eiró-Gomes and Sónia Lourenço (2009), that they are no longer seen as passive receivers but as active agents. For this to happen, the authors consider that “populations have to be convinced that they can make a difference and create this necessary change for themselves” (Eiró-Gomes & Lourenço, 2009, p. 1491).

This advice may be helpful even when a vaccine against covid-19 is now available, as maintaining protective behaviors, such as wearing a mask, remains crucial to limiting the spread of the new coronavirus. According to Noar and Austin (2020), to effectively promote these behaviors, we need to communicate what to do and why and do this clearly, consistently, and repeatedly.

The same view is shared by White et al. (2021) regarding measures against the spread of the new coronavirus: “people need to feel part of a joint effort with scientists and health authorities” (p. 219). Furthermore, people should be “confident in their ability to overcome barriers to continue this behavior” (Finset et al., 2020, p. 874), as is the case, for example, with financial difficulties in purchasing personal protective equipment.

White et al. (2021) conclude that the lessons from a year of the covid-19 pandemic point to the urgency of actively engaging individuals, patients, and patient organizations throughout the communication process, including defining key messages, checking their understanding, and using clear communication and appropriate language. For the authors, the existing evidence “shows that improving the level of patient empowerment

and patient involvement in healthcare is a protective factor in covid-19 emergence” (White et al., 2021, p. 220).

For this paper, we consider that primary healthcare is appropriate for investment in initiatives to empower NHS users, including transmitting helpful information to prevent the new coronavirus.

As part of the reform of primary healthcare, in 2008, the government created the health center clusters, public services with administrative autonomy, comprised of five types of functional units: family health units; personalized healthcare units; community care units; public health unit, and shared care resource unit (Decreto-Lei n.º 28/2008, 2008). In the same year, the government recognized, in Decree-Law No. 253/2012 (Decreto-Lei n.º 253/2012, 2012), that the emergence of ACeS:

has created a new paradigm in the organization of primary healthcare provision. Structured into flexible, functional units, the ACeS favor the access of citizens to this care, the involvement of professionals, the improvement of the quality of care, and the achievement of greater health gains. (p. 6757)

According to a group of experts, improving empowerment was considered 2 decades ago as a priority for the 21st century in the Jakarta Declaration and was defined as one of the seven fundamental principles that should guide health promotion initiatives (Rootman et al., 2001, pp. 4–5).

3. RESEARCH DESIGN

3.1. PROCEDURES FOR DATA COLLECTION AND ANALYSIS

This study was aimed at people aged 18 years or older, residents in Portugal, users of the health center clusters (family health unit, personalized health care unit, community care unit, public health unit), with internet access and Facebook social network account.

Data were collected using a questionnaire survey composed of 21 questions, applied using the Google Forms application. The questionnaire was divided into two parts: the first part was addressed to users of the health care center, and the second part was only addressed to participants who received information about covid-19 from their health care center cluster or their functional units¹.

The questionnaire was disseminated through a Facebook post by the researchers and shared in several groups (including Mulheres à Obra [Women at Work; <https://www.facebook.com/groups/mulheresaobra>], which has more than 130,000 members).

Overall, 1,010 responses to the questionnaire were obtained between December 6, 2020, and January 11, 2021. The sample excluded 106 responses from participants who

¹ This data collection instrument was used for study, conducted between June 3 and July 3, 2020, to a sample of 1017 participants (Garcia & Eiró-Gomes, 2020a).

ticked the option “no” being users of the health center, equivalent to 10% of the total responses collected (Figure 1).

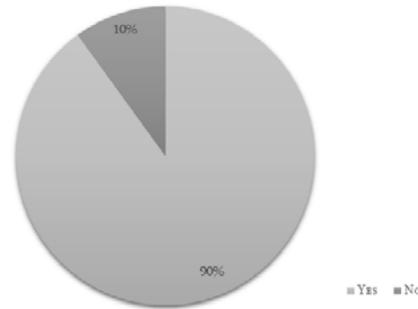


Figure 1 Are you a user of the health center? (n = 1.010)

The final sample was made up of 818 women (90.5%) and 86 men (9.5%), residents in the 18 districts of Portugal (in a total of 904 participants). Lisbon (41%), Porto (14%), Leiria (12%), Setúbal (8%), Santarém (6%), Coimbra (4%) are the districts with the highest number of participants. As for the age, more than half the sample comprises people between 29 and 50 years old (equivalent to 64.5%). The remaining age groups are represented by people between 51 and 60 years old (19.7%), between 18 and 28 years old (8.1%), and over 72 years old (0.1%), as shown in Figure 2.

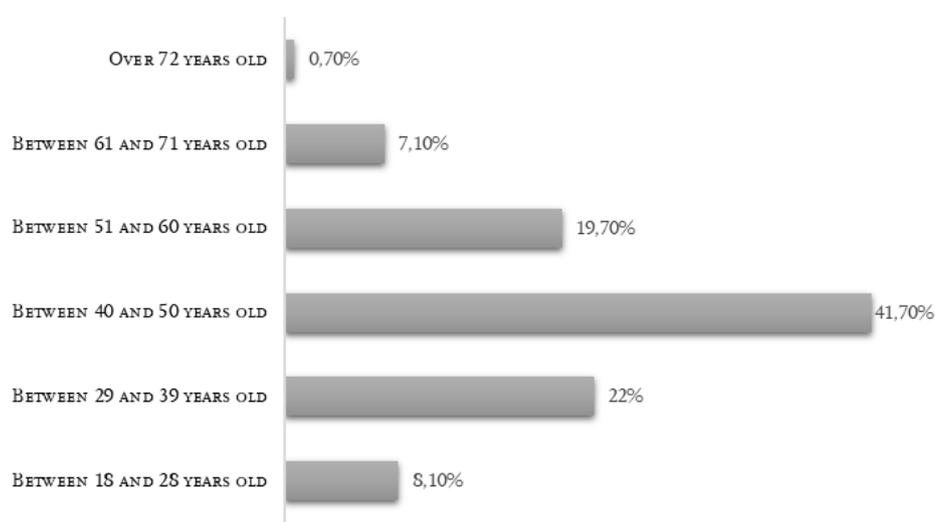


Figure 2 Age of the sample participants (n = 904)

Regarding the data on the professional situation, 64.3% of the participants in the sample are employed; 18.1% are self-employed; 8.8% are unemployed; 4.9% are retired, and 3.9% marked the option “other”.

Concerning the level of education, most of the respondents have a degree (36.2%), secondary education (19.5%), a master's degree (16.7%), a post-graduate degree (11.5%), or a technical-vocational course (7%). The percentage of people in the sample with basic education is low (0.4% with the first cycle; 0.6% with the second cycle, and 5.3% with the third cycle, which ends in the 9th grade).

In order to analyze the data, tables, charts, and graphs were prepared based on simple statistical operations, using Microsoft Excel software. Several variables were also crossed to obtain relevant data that could be discussed.

3.2. PRESENTATION AND DISCUSSION OF RESULTS

In 2020, more than half of the participants in this study ($n = 904$) very often sought information about the new coronavirus in the online media, either on institutional websites (350 responses) or in the online press (254 responses) or social media (169 responses). These results are in line with several published studies (Beck et al., 2014; Garcia & Eiró-Gomes, 2020a; Higgins et al., 2011) that report the online media as a relevant source of information on the topic of health.

These data do not surprise us since, in global terms, the most recent statistics point to 59.5% of internet users, equivalent to more than 4,000,000,000 people, which represents a growth of 7.3% from January 2020 to January 2021 (We Are Social & Hootsuite, 2021).

The *Digital 2021: Portugal* report also indicates that, on average, a person is connected to the internet for approximately 6 hours and 54 minutes (We Are Social & Hootsuite, 2021). In Portugal, it is estimated that 84.2% of the population uses the internet, approximately 7 hours and 20 minutes per day (We Are Social & Hootsuite, 2021).

The growth of online users may also positively impact the demand for content through television, which, according to our data, is the third information source with the highest demand (243 participants). Approximately 58.4% of the population in our country accesses television content online (We Are Social & Hootsuite, 2021).

In addition to television, NHS users claim to have sought information about covid-19 very frequently in the online press (254 responses), in the written press (139 responses), and on the radio (97 responses), as shown in Table 1.

	Very often	Often	Sometimes	Rarely	Never
INSTITUTIONAL WEBSITES	350	256	145	93	60
FRIENDS & FAMILY	112	232	251	200	109
SOCIAL MEDIA	169	221	188	200	126
RADIO	97	206	174	206	221
TELEVISION	243	284	180	132	65
ONLINE PRESS	254	255	202	120	73

PRINTED PRESS	139	213	203	176	173
HEALTH CENTRE CLUSTERS	17	42	99	193	553
DOCTORS AND OTHER HEALTH PROFESSIONALS	57	100	168	191	388

Table 1 Since the start of the covid-19 pandemic, where have you looked for information about this virus? ($n = 904$)

The health center clusters (and their functional units) are, among all the information sources presented, the least sought after by users of the national health service. More than half of the participants stated that they had never sought information from these institutions responsible for primary health care (553 answers). Doctors and other health professionals come immediately after as the least sought after by the participants in this study to obtain information on covid-19.

In comparative terms, there are no significant differences in the demand for information on the new coronavirus in the second half of 2020 compared with the results obtained in a study carried out in the first half of 2020 (Garcia & Eiró-Gomes, 2020a).

This survey also indicated that most participants did not receive information about the covid-19 pandemic from their health center clusters (80%). However, the overwhelming majority of participants who did not receive information ($n = 727$) stated that they would have liked to have been contacted by the health center, preferably by email (87.2%), telephone/mobile phone (36.5%), or post (20.2%). A low percentage of participants (8.7%) stated that they would have liked to have received information on the pandemic in person at the health center.

The second part of the study exclusively addressed NHS users who received information from their health center about the covid-19 pandemic, totaling a sample of 177 responses (20%). The participants say they received information by telephone/mobile phone (53.1%) in person at the health center (36.2%), by email (22%), or by post (1.1%).

Part of the sample (8.5%) chose the option “other”, referring to the social media of their health center. That suggests that NHS users accept social media as a way for their health center to communicate with them. Therefore, it seems to point to a need for reflection, by the institutions responsible for primary health care, regarding their presence in this communication channel, as already demonstrated in previous studies (Brito & Garcia, 2020; Garcia & Eiró-Gomes, 2020c).

This study evidences that most participants consider the information received by their health center as very useful (84.7%) and very reliable (70.6%). Only 15.3% of the participants classified the information received as not very useful and 2.8% as unreliable. These results suggest that NHS users consider the ACeS and its functional units reliable sources of information.

The Portuguese who make up the sample under study say, at the time of the survey, that they are very concerned (49.2%) or worried (42.4%) about the possibility of being

infected with the new coronavirus. Only 7.9% of participants say they are not worried about this disease. In a study conducted in the first half of 2020, only 33.6% of respondents expressed themselves as very concerned (Garcia & Eiró-Gomes, 2020a).

In February 2021, 748,858 confirmed cases of covid-19 were registered in Portugal (161,442,000 active and 573,934 recovered; Direção-Geral da Saúde, 2021). This virus has victimised, to that date, 13,482 people (Direção-Geral da Saúde, 2021).

The overwhelming majority of respondents chose the use of the face mask as the primary way to prevent covid-19 (97.2%), soon followed by social distancing (94.9%), hand hygiene (94.4%), and respiratory etiquette (70.6%), as shown in Table 2. The participants who selected the option “other” indicated confinement was a measure to prevent this disease. These results show that NHS users are aware of the recommendations disclosed to prevent the infection by the new coronavirus.

	Frequency	Percentage
USE OF THE FACE MASK	172	97.2
HAND HYGIENE	167	94.4
SOCIAL DISTANCING	168	94.9
RESPIRATORY ETIQUETTE	125	70.6
OTHER	23	13.0

Table 2 In your opinion, how can you prevent covid-19? (n = 177)

4. CONCLUDING REMARKS

This article aimed to analyze how the health center clusters, institutions responsible for primary health care, communicated about the covid-19 pandemic from the perspective of national health service users. The users of the national health service living in the 18 districts of Portugal were our data source.

Our research confirms that the institutions responsible for primary healthcare in Portugal were the source of information the least sought-after by users to learn about covid-19. The participants in this study also revealed they had not received any information about the new coronavirus from the health center clusters (80%), although they wished to have been contacted, preferably by email (87.2%), telephone/mobile (36.5%) or mail (20.2%).

Recommendations from numerous authors suggest that “governments should reach out to key communities to ensure that their concerns and information needs are understood, tailoring advice and messages to address the audiences they represent” (Tangcharoensathien et al., 2020, Abstract section). However, our data suggest that such work has not been carried out globally in primary healthcare.

The participants who received information on the new coronavirus from their health center considered it very useful (84.7%) and very reliable (70.6%), which indicates that the ACeS are considered a reliable source of information by the NHS users.

However, in line with previous studies (Garcia & Eiró-Gomes, 2020b, 2020c), we believe that the communication developed by the health center clusters in Portugal is far from a strategic perspective that can contribute to reducing the risk behaviors related to the pandemic of covid-19:

this public emergency has thus reinforced the need to rethink the importance of institutional sources that can ensure the transmission of credible information. In this context, due to their proximity to the population, we argue in this article that primary health care, represented by the Health Center Clusters and their Functional Units, should fulfill their organizational mission to promote health prevent disease. (Garcia & Eiró-Gomes, 2020a, p. 43)

Our data also indicate that participants are very concerned about the possibility of infection by the new coronavirus, despite knowing the necessary measures to prevent infection, such as the use of face mask (97.2%), social distancing (94.9%), hand hygiene (94.4%) and respiratory etiquette (70.6%).

The analysis of why users do not seek information from their health center and why the health center clusters did not assume an active role in communicating with their audiences in the face of the covid-19 pandemic will be future research topics.

Translation: Andreia Garcia and Mafalda Eiró-Gomes

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