COVID-19: comments on official social network of the Ministry of Health about action Brazil Count on Me

ABSTRACT

Objective: To unveil the content of comments in official posts calling from the Ministry of Health, calling for health professionals to confront COVID-19.

Method: Qualitative study, carried out with 2823 comments, obtained from the virtual access to the Ministry of Health's social networks on Facebook, Instagram and Twitter. For textual corpus processing, used software Interface R analyzes Multidimensional Texts and Questionnaires and performs a multivariate analysis by Descending Hierarchical Classification.

Results: Five categories were included: "difficulties in the training stages", "aspects involved in the summons", "working conditions without facing the pandemic", "mandatory capacity or possible summons", "visibility and valorization of dentistry in combating the pandemic" COVID-19.

Conclusion: Comments contemplated professionals or access to training, remuneration and working conditions, mandatory training, possibility of calling for action on the front line without fighting COVID-19 and claiming greater appreciation of dentistry.

Key words: Coronavirus infections. Online social networking. Health personnel.
INTRODUCTION

COVID-19 disease, caused by contamination by the human coronavirus Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), presents a rapid upward trend in the epidemic curve worldwide. The disease has become an international public health emergency and it has a high potential for transmissibility and clinical severity. The symptomatology of severe patients affected by this disease includes severe acute respiratory syndrome, which requires intensive care.

The transmission of COVID-19 has caused hospital and community outbreaks, leading to more than 83 million confirmed cases worldwide and 1.8 million deaths recorded as of January 06, 2021. In the list of countries confronting the disease, Brazil is the first in the Americas and third in the world in the number of confirmed cases, reaching more than seven million. In Brazil, most of the cases of contamination were recorded in the southeast, northeast, and south regions.

In this scenario, health professionals work at the forefront of care in various sectors providing direct care to patients with suspected and confirmed cases of the disease. Although extensive efforts have been made to implement safe practices and protective measures, the contamination rate of these professionals is increasing. This circumstance caused an increase in the demands of health services, which led to a significant shortage of health workers amid global efforts to fight COVID-19.

Considering the Brazilian scenario, the Ministry of Health issued Ordinance No. 639/2020 to convoke and register health workers and provide online training with the aim of strengthening activities to confront COVID-19. The convocation was widely divulged on the official communication channels of the federal government and on the social media profiles of the Ministry of Health on Instagram, Facebook, and Twitter.

The use of these social media platforms was strategic because of the large number of users and capacity to unite people in the same network of subjectivities, which cultivate common ideals. Instant interaction by means of comments in posts in social media has become the most common form of user participation in discussions and manifestations of opinion. Such comments are important in the public realm since they help establish an interaction between government and the population and allow civil society to express points of view to the public administration.

In this regard, it is important to know the opinion of internet users regarding the convocation and, thus, better understand possible behaviors, adherence of health workers, and factors that may positively or negatively impact the convocation. Since nursing professionals are present in all care services and they were the target of the convocation, studies on this subject are of interest to this professional category. Thus, the research question was as follows: What is the content of comments in the notice of convocation posts calling health workers to fight against COVID-19? Thus, this study aimed to reveal the content of comments in official convocation posts of the Ministry of Health calling health workers to help confront COVID-19.

METHOD

This is a descriptive study with a qualitative approach carried out in April 2020, based on access to the official social media profiles of the Brazilian Ministry of Health on Facebook, Instagram, and Twitter. All comments in the post published on April 02, 2020, were collected. This post informed health workers about enrollment in training to help them confront the coronavirus pandemic (COVID-19).

In all, 3867 comments were identified in the three social networks surveyed. Of these comments, 2804 (72.5%) were posted on Instagram, 1007 (26.0%) on Facebook, and 56 (1.5%) on Twitter. After the comments were read in full, 798 (28.5%) comments from Instagram, 229 (22.7%) from Twitter, and 17 (30.4%) from Facebook were deleted because they tagged other users or because they were figures and emojis. In all, 2823 comments were included in the study, of which 2000 (71.0%) were from Instagram, 778 (27.6%) from Facebook, and 39 (1.4%) from Twitter. All these comments were read in full and arranged into a single text to compose the corpus of analysis.

The analysis was carried out using IRaMuTeQ (Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires) open-source software version 0.7 alpha2, for data processing. This software fractionates the text corpus into segments and, by employing chi-square, enables multivariate analysis used in the present study through descending hierarchical classification (DHC). In this analysis, the segments are analyzed and grouped into classes based on similarity of vocabulary, which differs from one class to the other. DHC is presented as a dendrogram that also shows the relationship between the classes found.

The textual corpus analyzed in the present study could be processed using IRaMuTeQ since it contained 5106 words in 46325 occurrences subdivided into 1310 segments, from which 91.6% of the content proved viable for processing, resulting in five thematic classes.

The ethical precepts of anonymity, reliability of information, and use of findings for exclusively scientific purposes were observed. The information in the comments was collected, analyzed, and divulged without the need for prior
consent or authorization from the people who made the comments since Instagram, Facebook, and Twitter are public platforms, open and accessible to anyone.

To identify the transcribed statements, the letter “C” for “comment” was used, followed by the ordinal numeral according to the chronological order of the comments.

RESULTS AND DISCUSSION

The 2823 comments resulted in the following five classes: “difficulties in the stages for training”, “financial factors involved in the convocation”, “working conditions during the pandemic”, “mandatory training vs possible convocation”, “visibility and appreciation of dentistry in the fight against COVID-19”. The relationship between these classes is shown in the dendrogram (Figure 1).

Class 1: “Difficulties in the stages for training”

In Class 1, the comments addressed questions and information on the enrollment process for training, which involves registration and receiving an e-mail for subsequent access to the training course on COVID-19. The users stated they had already registered but had not received or had waited some time to receive the e-mail to continue with the process.

I have already enrolled, after the first registration, does it take a long time to receive the email? (C445)

I enrolled and have not received any form, so far, I have not received the e-mail to get access to the training course (C641).

I registered 2 days ago, but I did not receive the confirmation email (C1268).
Mine took 12 hours and another 12 to get access (C1335). I'll try again tomorrow, I signed up, just need to get the link. The link was overloaded because of too many accesses, but it will work (C1742).

In Brazil, the Ministry of Health adopted strategies to cope with the pandemic, which included the Coronavirus-SUS application with information and assistance for users and enabled training opportunities for health workers\(^7\). For training, the strategy entitled “Brazil count on me” focused on the convocation of health workers to enroll in the online course COVID-19\(^5\). However, the data collected in this study showed that many health workers had difficulties understanding the enrollment process and accessing the training program.

The difficulties mentioned by the social media users may have hindered access and adherence of the health workers in terms of registration and training, both of which were promoted by the Ministry of Health. Thus, it is necessary to solve the listed problems, enable access, and improve communication with health workers regarding possible delays and deadlines for receiving the access link to the course.

When working in the forefront against a rapidly spreading disease that is still not fully understood, still unknown disease, training becomes a critical tool that provides information on the clinical management of patients contaminated by the novel coronavirus, which increases safety both for the professionals and their patients, and on the prevention, diagnosis, and treatment of COVID-19. However, such training must be offered with as little bureaucracy and as much functionality as possible, by means of a self-explanatory, user-friendly platform with easy access to all stages of the process and highly effective support in case of doubts; otherwise, the target audience may lose interest and choose not to enroll in the program.

Professional training on COVID-19 is feasible, as observed in China, where online platforms were also used, with government support, to inform and educate health professionals on the novel coronavirus. Initially, the courses were not mandatory, which led to poor adherence of health workers. Training was carried out using simulators and significantly contributed to the fight against COVID-19. In this class, comments on the need for clarity regarding travel expenses, accommodation, and food expenses and opinions contrary to voluntary work were highlighted.

\[\text{If we are called to other states, who will cover the accommodation and food expenses? (C84)}\]

\[\text{We have to at least receive something to work in the area, do not volunteer without receiving at least decent working conditions (C233).}\]

\[\text{I am trying to understand a country that invests little in education, does not have enough vacancies for these professions in public institutions, forcing families to pay their children's education, and now wants them to be volunteers (C956).}\]

The concerns of the health workers are relevant given the continental dimension of Brazil. Any trips to other states and regions could very possibly entail the need for financial support to cover travel, food, and accommodation expenses. In addition to being a labor right, these expenses are investments that would enable further professional education and reinforcement, which affects the quality of care provided and, therefore, the probability of deaths due to COVID-19. This fact was corroborated in a literature review conducted in Indonesia consisting of 25 studies, which revealed that better salaries increase performance, productivity, and the quality of health services, while lower salaries lead to a shortage of nurses\(^9\).

Another financial factor in this class was the proportion of received value, given the family distancing and the risk of contamination by COVID-19 and transmission to family members. The comments mentioned the low pay when considering the risk of exposure of workers and the condition of family distancing.

\[\text{I find it a very undignified amount for workers at the forefront, leaving family at home and at risk of contracting the disease (C380).}\]

\[\text{I think this patriotism is lovely! But who will take care of our family? I have a little son, you know? Yes, I have two and I am not willing to leave for 667 reais (C773).}\]

Financial issues are relevant for health workers who, in order to leave their families and risk infection must transcend the positive feelings of being health workers and contribute to saving lives, but still need incentives and recognition in several forms, including financial and salary. This reasoning
of health workers is rooted in a theoretical framework from sociology and anthropology that is widely applied in the business context - the social exchange theory -, according to which the social relationship between employees and a contracting organization is influenced by a cost-benefit ratio\(^{(10)}\). According to this theory, human behavior is not limited to a transaction or choice based on economic imperialism, but as part of a decision in which the social and human context/nature can override financial gain\(^{(11)}\). In this regard, the federal government should recognize the extent of the exposure of health workers who are confronting the pandemic and provide a salary that is compatible with their responsibility.

Considering that the situation of health workers in the pandemic is intrinsically associated with stressful factors, family distancing, and fear of contamination/viral transmission, the additional low salaries only increase the factors that affect mental health and may lead to absenteeism and reduced quality of professional performance.

This category included the opinion of social media users on the relationship between love of the profession and the need for remuneration, so it was clear that loving one’s work does not mean it will be performed free of charge.

**Tough to leave your work to earn less. We love what we do! but did we study for years to earn so little? Give us a national pay floor** (C154).

**Will it be a labor of love or will they pay? And those who have a job outside care, will they have to leave it for the mission? No one lives on missions alone** (C1468).

**Just saying that I do not work for love but with love, so I need to be paid like any other professional. I work with love, but for money, I do not pay my bills with hugs and people clapping from their windows** (C2003).

In healthy practice, positive feelings toward work do not replace the salary gap. On the contrary, a satisfactory pay that is compatible with the activity performed is transversal and influences such feelings. As observed in a social-historical study on the code of ethics and the history of nursing, charity, and vocation were notable in the early days of the profession, when care was linked to religious institutions\(^{(12)}\). However, there is an urgent need to break the paradigm that associates health care with charity or free service.

The need and desire of health workers for better pay are observed not only in the results of the present study but also in observing the high competition in selection processes and public tenders that offer much higher salaries than the market average. In contrast, vacancies with low pay can lead to job dissatisfaction and greater absenteeism and turnover, which reflect on the quality of care.

Regarding the effects of financial factors on the quality of care, a study conducted in Indonesia showed that wage dissatisfaction causes nurses to consider changing jobs\(^{(13)}\). Thus, the absence of financial incentive can discourage the participation of many health workers whose contribution is important in care in the critical time of a pandemic. Given the current epidemiological emergency with a high number of confirmed cases of infection/illness and deaths among health workers, which includes these professionals in the at-risk group for contact and contagion by COVID-19, the government must urgently consider better salaries for professionals working in the fight against the pandemic. In this regard, merely verbalized recognition of the importance of health workers is insufficient, as recognition would essentially include better pay.

**Class 3: “Working conditions during the pandemic”**

The most common word in this category was personal protective equipment (PPE). The lack of protective equipment and the lack of confidence of health workers with the quality of materials were highlighted, as well as the fact that health workers need to buy PPE to work safely. Moreover, guaranteed PPE was considered a minimum requirement for safe working conditions.

**And who do the professionals count on? These professionals do not even get PPE!** (C98)

**No PPE for professionals, in addition to praying and clapping, we need working conditions** (C141).

**I do not trust the safety of work equipment** (C796).

**That public service workers no longer need to buy their own equipment to provide dignified care to patients** (C1178).

**They want professionals to risk their lives without the minimum working conditions, without PPE, without a living wage, and with a huge workload!** (C1662)

**If we are required to provide care, they should at least give us PPE, no one can be required to work without it** (C2547).

In the comments that refer to PPE, the health workers express their fears and concerns regarding the occupational risk related to the novel coronavirus. Although the Ministry of Health has launched means to produce, acquire, and distribute PPE for health workers\(^{(14)}\), the contamination and illness of health workers by COVID-19 has been significant in several countries\(^{(15)}\). Thus, to reduce the risks of exposure...
to the virus, it is essential to sufficiently and continuously provide health workers with PPE, as well as training for its correct use\(^\text{15}\).

It should be noted that PPE is guaranteed in policies for worker health, in addition to decent working conditions for professionals who are at the forefront of care in the pandemic. Thus, investments in the safety of health workers both during the pandemic and post-pandemic is not limited to labor laws, established by the regulatory standard of occupational health and safety in health care services (NR32, Norma Regulamentadora de Segurança e Saúde no Trabalho em Serviços de Saúde), but also involves health issues since health workers can get sick simultaneously, which may increase the chance of hospital-acquired infection and compromise the quality of care to users.

In this regard, investing in PPE is a responsible and sensible attitude in terms of cost efficiency since PPE reduces illness among workers, which may lead to leave and temporary hires. Notably, adequate conditions for health workers is the responsibility of managers, who must commit to this responsibility at all levels of care to ensure workers are protected against COVID-19\(^\text{14}\).

In addition to the debate regarding PPE, working conditions were listed in the comments as being of the appreciation of health workers. There was mention of the need to reduce working hours to 30 hours a week and include opportunities for first employment as factors that show respect for health workers.

> It is time to recognize the value of all professions in health care. We all deserve respect and better working conditions (C40).

> I hope not only physicians but all other health workers are valued more, especially in municipalities and states (C953).

> Health workers count on you to value their work, reduce the workload to 30 hours, offer first job opportunities, special retirement (C1330).

> High weekly hour loads increase occupational illness and reduce the quality of work. This is a worrying scenario, considering that the many hours worked by health workers were already an issue before the pandemic and intensified after its onset. Notably, in the course of the fight against COVID-19, the reduced quality of care due to excessive workload can result in increased mortality.

> Professional appreciation has always caused anguish and concern among health workers and these feelings only increased during the pandemic. According to the WHO, such professionals are at the forefront of the response to the COVID-19 outbreak and, as such, are exposed not only to the risks of contamination by exposure to the pathogen, but also to long working hours, mental distress, fatigue, burnout, stigma, and physical and psychological violence\(^\text{2}\). According to a study conducted in the United States regarding the importance of supporting health workers during the COVID-19 pandemic, the provision of adequate food, rest, and time off can be as important as the provision of protocols and PPE because, as time passes, work-related difficulties and burnout increase\(^\text{16}\). Thus, it is believed that managers must reconsider the current working conditions of health workers and provide the deserved and necessary working conditions during both the pandemic and post-pandemic.

> It is undeniable that nursing professionals are at the forefront of health services around the world and this reality has become more evident in the pandemic. The findings of a study conducted in Australia on nursing in the context of COVID-19 suggest that, amid uncertainties about the virus and the time needed to re-establish normal routines, nursing and health care, in general, will be strengthened and better equipped to face future health demands\(^\text{17}\). However, it should be noted that this strengthening and better preparation require legislation and public policies that favor and improve investments and incentives in the Unified Health System (“SUS”), which, over the years, has been the target of governmental negligence and progressive abandonment.

> The comments of the social media users on working conditions included another professional factor - job opportunities. The recently graduated health professionals and those who did not have experience expressed concerns regarding job opportunities after the pandemic.

> That after the pandemic, new graduates and inexperienced professionals have an opportunity in the job market (C2641).

> The difficulty of professionals in entering the job market already existed before COVID-19. A study conducted in Ceará analyzed the job market of nursing assistants and technicians and concluded that 65.9% of professionals had difficulty finding work and the lack of professional experience and public tenders were the main reasons for the difficulties of recent graduates in entering the job market\(^\text{18}\). This context will be aggravated by the end of the pandemic because many vacancies created during the overcrowding of health services will no longer be necessary.
This fact is ratified by Ordinance No.639, which establishes that the measures adopted for coping with the pandemic will be executed insofar as the public health emergency is maintained, due to COVID-19\(^\text{(5)}\). Thus, health workers will perform their work activities temporarily, without a job contract. Another factor that legitimates the user concerns about this issue is that, due to the pandemic, many sectors face difficulties, especially financial difficulties, which can hinder job generation in several areas including health care.

**Class 4: “Mandatory training vs possible convocation”**

It was observed in the comments that some users had doubts about the difference between the call for the training course and the call to work at the forefront of care; in contrast, the comments of other users clarified these doubts. Such clarifications reinforced the mandatory enrollment in the course of workers registered in the professional councils.

*I do not know how it will work, if it is necessary to make this emergency convocation (C498).*

*You are required to enroll and do the course if you are registered at the professional council. If you are registered in any health board, you are required to enroll for training (C502).*

*At first, this mandatory enrollment is for the training course on fighting the coronavirus (C506).*

*Depending on your answer they may call you (C515).*

The codes of ethics and oaths of graduation of health workers presuppose a lifetime commitment. This commitment, in addition to its relevance in reducing deaths, includes a condition to increase the supply of hospital beds to fight the pandemic. Because continuing education is inherent to professional practices, the growing supply of beds results in the need to provide more professional training that, with regard to the specificities of COVID-19, increase its relevance given the magnitude, high transmissibility, involvement of health workers, and increasing mortality worldwide.

Therefore, the mandatory enrollment of professionals based on the importance of training is understandable, especially due to the possibility of a sudden collapse and chaos in health services, which demands as many trained workers as possible to help resolve critical situations.

In this regard and due to the unfortunate and criminal spreading of fake news and incorrect information on COVID-19, standardized training based on scientific evidence should be provided by official institutions, such as the Ministry of Health, and professionals who are not trained by such institutions should be cautious and critically analyze the credibility of their sources of information.

In this study, the content of the posts included the sources of information consulted by the users, namely the ordinance of convocation, the Ministry of Health website, and an interview with the minister of health published in the media.

The minister of health was very clear in today’s press conference, *if all the people who commented had read the ordinance, we would not have so many arguments and unnecessary questions (C1360).*

As stated in the ordinance, *the professional who does enroll or do the course, the council would be notified (C1374).*

*If you want to participate check the Ministry of Health website (C1379).*

The dialogues among the users, in their comments, showed that they interacted and that the sources of information cited were official. When a health worker did not have information on the subject involving their professional practice, the authors of the comments that clarified the doubts showed they were familiar with Ordinance No. 639/2020, according to which all health workers must enroll in training; however, also according to the ordinance, this mandatory requirement does not mean they will be summoned or forced to work in health services for patients with COVID-19\(^\text{(5)}\). This finding stresses the need for greater empowerment of professionals regarding factors that involve their work in the pandemic.

**Class 5: “Visibility and appreciation of dentistry in the fight against COVID-19”**

Of all the workers of the multidisciplinary team, the comments of the users highlighted the dentists. Their comments revealed dissatisfaction regarding the absence of this professional category in the advertising campaign video of the convocation.

Too bad that in the video you did not even mention dentists, a profession that is increasingly neglected in this country (C248).
I am outraged, on behalf of all dental professionals, with the video that has been circulating on social media on the convocation of health professionals. They mention all of them but left out dental surgeons? (C844)

I signed up, but I am here showing my dissatisfaction after watching the advertisement ‘filho seu não foge à luta’ [literally, son of yours does not flee the fight, a phrase from the Brazilian national anthem] and not even seeing my category included. Most of the population is unaware, dentists do not only look at teeth (C2309).

Even though these professionals have a higher risk of contamination by the virus, we were not even mentioned in the campaign video (C2455).

The user complaints are legitimate when it is observed that the advertising campaign was probably created to express appreciation and recognition to health workers. Therefore, none of the medical categories could be overlooked or neglected since media visibility influences the opinion of the population and the recognition and credibility of health workers.

The authors of these comments identified themselves as dental surgeons and listed arguments for their important role in the fight against COVID-19. They stated their category is the most at-risk, that they even work in hospitals and, even during the pandemic, they continue providing emergency dental care to the population.

We, dental surgeons, are the most at-risk for COVID-19 (C652) contamination.

As a dental surgeon, I regret the non-representation of dental surgeons as health workers in the fight against coronavirus since we are always ready, we never stop working, attending to the emergencies of our patients (C906).

It is striking the lack of recognition, as a health professional, that dentists put up with from the authorities and from society itself. We work directly in the mouths of people, highly exposed to any contamination. But in all this situation that we are experiencing, at no time or place was the dental surgeon mentioned (C1544).

My protest is for my category, respect that! How many oral and maxillary surgeons and hospital dentists work hard day after day at hospitals to not even be remotely remembered at this moment (C2283).

Because the novel coronavirus is spread by respiratory droplets and contact with the oral and nasal mucous membranes, dental professionals are considered at greater risk for contamination since they are in direct contact with the oral cavity of patients(19). Although elective dental care is suspended, emergency cases are attended and pose a challenge for dental surgeons because of the varied symptomatology of patients with COVID-19 and the possibility of asymptomatic patients infected with the virus(20). As these professionals provide oral health care to the population and are active members of the multiprofessional health team, they should be remembered by the Ministry of Health in advertising campaigns and they should have access to training aimed at coping with COVID-19.

CONCLUSION

In the comments to the posts for the convocation of health workers in the fight against COVID-19 mentioned difficulties accessing training courses due to delays in the receipt of an e-mail with a link to complete enrollment to the course; financial issues related to covering travel, food, and accommodation expenses and the offered pay for their work; the risk of infection, distance from their families; working conditions such as working hours and the provision of PPE; the mandatory requirement to enroll in training and possible convocation to work at the forefront of the fight against COVID-19; and the need to increase visibility of the field of dentistry in the fight against COVID-19.

This study has some limitations. First, it was conducted using three social networks and the findings may not portray the reality observed in other social networks. Second, the comments in the first post of the Ministry of Health in social media were analyzed, and these comments may differ from those of subsequent posts on the call for training. Finally, comments from specific users of social media were investigated, so the observed scenario and opinions may differ from those of health workers who do not use social media or from those who do not post comments on these networks.

The results of this study contribute to unveiling the comments, opinions, and reactions of internet users regarding the convocation. These findings may serve as guidelines for future clarification campaigns and new convocations. In addition, they contribute to the state-of-the-art of health worker performance in the fight against the COVID-19 pandemic.
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