Letter to the Editor

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COVID-19 – Speech-language pathology in emergencies and catastrophes

COVID-19 - Fonoaudiologia em emergências e catástrofes

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The pandemic caused by Coronavirus Disease (COVID-19) led Speech-Language Pathology to face unprecedented challenges. This letter describes the way that a group of teachers, students and speech-language pathologists from the front line reacted to the new care demand.

Emergencies and/or catastrophes can be defined as "a natural or man-made event that involves a large number of victims and causes damage to people, structures and/or the environment". In early December 2019, cases of respiratory tract infections, many of them with pneumonia, were detected in Southeast China, in the city of Wuhan, Hubei Province[1,2]. Then, the etiologic agent, later named SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus[2,3], was identified. This new betacoronavirus, with ancestor in bats, causes respiratory disease that can lead to death, called COVID-19 (Coronavirus Disease) by the World Health Organization (WHO). Given the rapid spread of SARS-CoV-2[4] and the significant mortality from COVID-19, especially in older patients[2,5], it was imperative to develop strategies for studying the virus and the disease. In most Brazilian states, medium and large hospitals formed multi-professional groups that could provide quick responses and guide COVID-19 surveillance, diagnosis, treatment and prevention strategies.

As members of the Speech-Language Pathology Division of a large public hospital in São Paulo, Capital, we had the opportunity to develop a project for the management of the pandemic, which involved patients, students and professionals in our area. The project was executed in the form:

1. Immediate Speech-Language Pathology assistance to patients with COVID-19. We knew that the patient's aggravated clinical condition with COVID-19 would require admission to Intensive Care Units (ICU). The pandemic would increase the number of patients who would require tracheostomy, orotracheal intubation and Prolonged Mechanical Ventilation (PMV). These procedures are common in ICU and could lead to damage, both supra and infraglottic, which imply impaired swallowing of patients[6-8]. Thus, dysphagia was predicted for most patients with COVID-19, but we did not know what the clinical behavior of patients would be like. Although we did not know if there would be an immediate entry into the ICU/COVID, we prepared to assess and treat the patients that the team referred to us. This preparation included the following safety parameters: we would care for adult patients (≥18 years old), in clinical and respiratory stability, with a Glasgow Coma Scale score of ≥14 points; we would use the validated protocols: SOFA, ASHA NOMS and PARD. If it were not feasible to apply them in full, we would do what we could;
2. Emergency training for undergraduate students; specialization and residency of *Fonoaudiologia - Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo* (FONO-HCFMUSP) for the possible assistance to patients with COVID-19. We did not know if there would be a need to increase the number of speech-language pathologists on the front line of care. Our available professional staff would be insufficient if there was an exponential increase in demand. In the second week of March 2020, we started training at a distance, with continuous supervision and support. All undergraduate students as well as the students with postgraduate degree were trained for active practice, if necessary. The basic training of COVID was based on the Clinical Management Protocol of COVID-19, in the specialized care of the Ministry of Health. All students from the 1st to the 3rd year were trained for the rapid screening of patients and follow-up of patients with post-discharge dysphagia hospital, with direct supervision. The 4th and 5th-year students were trained for Speech-Language Pathology, dysphagia, assessment and conduct, with direct supervision. The students with

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postgraduate degree had their training anticipated and directed to dysphagia;

3. Formulation of a distance course for students and professionals of Speech-Language Pathology, to prepare speech-language pathologists for emergencies and catastrophes, which will punctuate our professional commitment to the dissemination of good clinical practices, with the following program:

- Historical, epidemiological, clinical and social responsibility training on Speech-Language Pathology in catastrophes;
- Determination of the characteristics of clinical speech-language evaluations and interventions in situations of multiple victims and catastrophes, when the vast majority of patients will need intensive care;
- Specific training to assess the ability to receive and treat an abnormally high number of patients who suddenly come to the emergency department;
- Basic training for work at a critical moment that interrupts the hospital routine and the impact on care for victims;
- Formulation of a Speech-Language Pathology plan capable of differentiated actions given the expected number of victims and the capacity of the First Care Unit to assist them with their own resources (employees on duty at the *Unidade de Pronto Atendimento* (UPA)), internal resources (employees on duty in other areas of the institution), or external resources (off-shift employees, backers and support from other government institutions or bodies).

Here is the testimony of speech-language pathologist Maíra Santilli de Lima, our first professional to be included in the front line of patients in the ICU/COVID.

> *"When the first patients with Covid started to be admitted to the Hospital das Clínicas* (HC)*, at the beginning of March, we were a little uncomfortable, but we normally maintained our care for other patients and our usual routine. As a result, we began to pay more attention to the Personal Protective Equipament* (PPE) *guidelines that became stricter and over the days, the cases of hospitalized COVID were growing more and more. With the evolution of the pandemic in Brazil, specifically in São Paulo, we also saw the streets changing, the commerce closing, people were almost no longer seen on the streets, the fear of the unknown was around everyone. As we saw in studies that already existed at the beginning of the pandemic in the world, patients spent a lot of time on Orotracheal Intubation* (OTI) *and with that, we imagined that requests for the assessment of dysphagia would take a long time to reach us. But not. Shortly after the admission of these first patients, contrary to the studies, the patients began to be extubated faster than we imagined and then, without being waiting, the first request for speech evaluation arrived. We did not know exactly what awaited us, which profile of this patient and how the routine was within the ICU COVID. I particularly saw employees coming and going in the corridor or in the hall in front of these ICUs, all super dressed, always in a hurry and with a serious look in their eyes... something I had not seen before in these same people. It seemed to me like a movie, from another world. I remembered the images a lot when we saw the news and images of the Ebola outbreak, or even movies. And then it was time for the first call. I was very afraid. Fear of the unknown, fear of getting sick, fear of getting sick and serious, fear for my fiancé who lives with me, fear for my family that was super worried about me. My father and brother spent almost 1 month without talking to me so they said that I should quit, that I shouldn't be exposed to it. But I never hesitated. In an attempt to make these calls faster and more effective, we thought of ways to make our assessment faster, more objective and safer. We follow all our existing protocols, but we optimize the steps, to try to reduce the number of visits to patients, and less time of exposure to the virus. The first vestment was the most difficult. Fear that some part of the body was exposed, fear of doing something wrong ... I remember that it took me a long time to dress up, I asked for help for doctors and nurses to check if it was well protected. But when I entered the room, I saw that it was a "normal" service. He was a "normal" patient, with the same clinical pattern as an extubated patient after OTI, with the addition of respiratory disease, that is, something I had previously dealt with. Over the days and months, things have been getting right, with the medical teams, nursing, physiotherapy, nutrition, dentistry, social work, psychology and even within our team. We were able to give confidence to the frightened students, who today take these calls for granted, we were able to increase the number of employees in our team and we started to routinely provide exclusive care to patients with COVID. The attire that was so long and insecure, nowadays is something routine, without secrets, already included in our routine and so much more practical in relation to the beginning. We serve several profiles of COVID patients. The classic cases, with "only" the complications of COVID, but also the cases with previous diseases that already affected swallowing* (cancer, neurological diseases and others)*, we serve from babies to the elderly over 90 years. In a way, the treatment of patients with COVID was no different than treating other cases that we already treated. We continue with judgment and clinical reasoning, critical thinking, and communicating with the multi-professional team as we have always done. We found the same questions as always, regarding the indication of Gastrostomy Tube* (GTT)*, comfort diet, risk of aspiration vs. risk of dehydration/malnutrition, always analyzing case by case. We started to see the anguish of most of our patients. Many had no news of the other family members, spending months without seeing anyone in the family, in a closed room, often alone, without access to the outside world, without knowing the right of this disease that has haunted everyone and is present in his body. In addition to dealing with the issues of swallowing, motor skills, speech and voice, we also deal with these emotional issues, which we need to circumvent in the best way, so that the rehabilitation process of this patient is not harmed by himself, without his realizing it. It has been a challenging experience, but our team has come together and has always had the support of our institution, especially in terms of occupational safety".*

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