



Challenges and impacts of the performance of newly graduated speech-language pathologists in Espírito Santo during the COVID-19 pandemic

Desafios e impactos da atuação de fonoaudiólogos recém-formados no Espírito Santo durante a pandemia de COVID-19

Retos e impactos del desempeño de los logopedas recién graduados en Espírito Santo durante la pandemia de COVID-19

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Abstract

Introduction: Newly graduated speech-language pathologists (SLP) may be going through a unique moment for their performance because of the COVID-19 pandemic. In addition to undergraduate learning, there are the Resolutions of the Federal Council of Speech-Language Pathology, which have alerted and helped professionals in this practice. **Objective:** to verify how newly graduated speech-language pathologists act during the COVID-19 pandemic, what are the challenges of the graduation that may reflect in this performance and knowledge about Federal Council of Speech Therapy (CFFa) resolutions. **Methods:** observational, cross-sectional study. A questionnaire was applied to SLP graduates from the last 24 months by an institution of Espírito Santo state, presenting the data in a descriptive way. **Results:** 32 speech-language pathologists were interviewed, 93.7% women, mean of 25 years. 81.2% exercised their profession during the pandemic, the majority in person, with reduction in salary to 1/3. On average, 40% claimed that graduation helped them about treatment in COVID-19 cases, but only 28% for telehealth.

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Authors' contributions:

GTD: study design, data collection, data analysis and article writing.

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The most cited CFFa resolution was on telehealth (81%). Speech-Language therapy performance in cases of COVID-19 was classified by 75% as “Challenging”. **Conclusion:** most SLP performed the profession, but there was unemployment and reduced wages due to the pandemic. They knew CFFa resolutions, with emphasis on n. 580. There was no consensus regarding the contribution of the undergraduate course in the treatment of these cases, with challenges in terms of telehealth and urgency/emergency, which have been faced and may have a negative impact on professional life.

Keywords: Coronavirus infections; COVID-19; Professional Practice; Professional Practice Location; Speech, Language and Hearing Sciences.

Resumo

Introdução: Os fonoaudiólogos recém-formados podem estar passando por um momento único para sua atuação devido à pandemia de COVID-19. Além do aprendizado da graduação, há as Resoluções do Conselho Federal de Fonoaudiologia, que têm alertado e auxiliado os profissionais nessa prática. **Objetivos:** verificar como fonoaudiólogos recém-formados atuam durante a pandemia de COVID-19, quais os desafios da graduação que podem refletir nessa atuação e conhecimentos sobre Resoluções do Conselho Federal de Fonoaudiologia (CFFa). **Métodos:** estudo observacional e transversal. Aplicou-se um questionário em graduados em Fonoaudiologia dos últimos 24 meses por uma instituição do Espírito Santo, apresentando os dados de forma descritiva. **Resultados:** entrevistou-se 32 fonoaudiólogos, 93,7% mulheres, média de 25 anos. Destes, 81,2% exerciam a profissão durante a pandemia, a maioria de maneira presencial, porém, houve redução do salário para 1/3. Em média, 40% alegaram que a graduação ajudou na preparação para o atendimento de casos COVID-19, mas apenas 28% para telefonaudiologia. A Resolução do CFFa mais citada foi sobre a telefonaudiologia, por 81%. A atuação fonoaudiológica em casos de COVID-19 foi classificada por 75% como “Desafiadora”. **Conclusão:** a maioria dos fonoaudiólogos exerciam a profissão presencialmente, mas houve desemprego e redução do salário em decorrência da pandemia. Conheciam as Resoluções do CFFa, com destaque para a Resolução n. 580. Não houve consenso quanto à contribuição da graduação no atendimento desses casos, com desafios quanto à telefonaudiologia e à urgência/emergência, que têm sido enfrentados pelos egressos, podendo impactar negativamente na vida profissional.

Palavras-chave: Área de Atuação Profissional; COVID-19; Fonoaudiologia; Infecções por coronavírus; Prática Profissional.

Resumen

Introducción: Logopedas recién graduados pueden estar atravesando un momento único para su desempeño debido a la pandemia de COVID-19. Además del aprendizaje de pregrado, existen Resoluciones del Consejo Federal de Logopedia, que han alertado y ayudado a los profesionales en esta práctica. **Objetivo:** verificar cómo actúan logopedas recién graduados durante la pandemia de COVID-19, cuáles son los desafíos de la graduación que pueden reflejarse este desempeño y conocimiento sobre resoluciones del Consejo Federal de Logopedia (CFFa). **Métodos:** estudio observacional/transversal. Se aplicó un cuestionario a los egresados de Logopedia de los últimos 24 meses por una institución de Espírito Santo, presentando los datos de forma descriptiva. **Resultados:** se entrevistaron 32 logopedas, 93,7% mujeres, (media= 25 años). El 81,2% ejerció su profesión durante la pandemia, mayoría de forma presencial, con reducción de salario a 1/3. En promedio, 40% afirmó que la graduación les ayudó con el tratamiento en los casos de COVID-19, pero solo 28% para telesalud. La resolución de CFFa más citada fue sobre telesalud (81%). El rendimiento de la terapia del habla en los casos de COVID-19 se clasificó en un 75% como «Desafiante». **Conclusión:** la mayoría de los logopedas ejercen la profesión, pero hubo desempleo y reducción de salarios debido a la pandemia. Conocían las resoluciones CFFa, con énfasis en n. 580. No hubo consenso sobre la contribución de la carrera en el tratamiento de estos casos, con desafíos en telesalud y urgencia / emergencia, que se han enfrentado y pueden tener un impacto negativo en la vida profesional.

Palabras clave: Infecciones por Coronavirus; COVID-19; Fonoaudiología; Ubicación de la Práctica Profesional; Práctica Profesional.

Introduction

In March 2020, the World Health Organization (WHO) declared the pandemic of the new coronavirus, or Sars-CoV-2, the cause of the disease COVID-19. Among the main measures to try to contain the virus, distancing and social isolation were adopted¹.

In Brazil, COVID-19 has already led to the death of more than four hundred and seventy thousand people, reaching more than sixteen million confirmed cases². From this scenario, many professionals had their routines changed: unemployment reached many³, others were removed, and others still kept their work activities in other modalities, such as remote⁴.

Among the healthcare professionals exposed to COVID-19, there are the speech-language pathologists (SLP). According to the Brazilian Regional Council of Speech-Language Pathology of the 2nd region (CREFONO 2), this is the professional “responsible for health promotion, prevention, assessment and diagnosis, guidance, therapy (habilitation and rehabilitation) and improvement of the speech therapy aspects of the peripheral auditory function and central, vestibular function, oral and written language, voice, fluency, speech articulation and myofunctional, orofacial, cervical and swallowing systems. It also carries out teaching, research and administrative activities”⁵.

Most newly graduated SLP expect to work in clinics, but they are also interested in the hospital area⁶. However, in 2010, SLP considered access to the hospital area difficult⁶. Currently, both cases may present a risk of contamination, as well as other places where the speech-language pathologist works.

Therefore, the Federal Council of Speech Language and Hearing Sciences in Brazil (CFFa) has alerted professionals about the precautions to exercise the profession during the new coronavirus pandemic. Among the alerts are Resolutions on outpatient care, at home and in long-stay institutions, and also on telehealth, published in 2020⁷⁻⁹.

In addition, newly graduated SLP who have not yet managed to enter the job market may be going through a unique moment, which can change this insertion in the market, considered difficult by many¹⁰. Although they are not considered as the frontline professionals in the fight against Covid-19, their performance can be direct with

these cases, especially because the performance in patients diagnosed with the disease must be evaluated and feasible¹¹.

From the above, the objectives of this study were:

- I. Check how newly graduated SLP are working in the profession during the new coronavirus pandemic: whether they are in the front line in the fight against the pandemic or not; whether in person or remotely; whether they are using personal protective equipment (PPE) and, if yes, which ones, and if the pandemic affected your income;
- II. Identify whether newly graduated SLP have knowledge about the current Resolutions of the Federal Council of the profession;
- III. Analyze the reports on the challenges of graduation that can reflect on the performance of telehealth and in urgent/emergency cases;
- IV. Describe the challenges regarding the role of newly graduated SLP in cases of COVID-19.

Methods

It is an observational, descriptive and transversal study, carried out with graduates in speech-language pathology at the Universidade Federal do Espírito Santo (UFES) whose graduation took place in the last 24 months. This study was approved by the Research Ethics Committee of the institution under number: 4.235.259.

To contact the possible participants of this study, the researchers requested the Academic Collegiate of the Speech-Language Pathology course at UFES to access the e-mail addresses of graduates of the institution in the last 24 months. Thus, 52 graduates were identified. These graduates received, in an individualized email, an invitation to participate in the survey, which included the objective and justifications of this study, as well as a link to Google Forms, the platform to which the instrument for data collection was allocated.

The first page of the form included the Free and Informed Consent Form (ICF). Only by accepting participation, individuals were directed to the research instrument. This instrument was previously developed by the researchers and sought to identify sociodemographic and labor data, issues related to COVID-19 infection by the professional or a close family member. In addition, the knowledge about the Resolutions related to the

profession during the COVID-19 pandemic, made available until the time of data collection in this study, was questioned (Resolutions n. 576, 577 and 580). It was also questioned whether the training offered during graduation helped them to provide care in times of pandemic. Participants were also asked to express their feelings about the work of Speech-Language Pathology in cases of COVID-19 through a list of adjectives so that all participants, regardless of whether they had experience in cases of COVID-19, could describe their opinion on the role of Speech Therapy in cases of infection by the new coronavirus. Participants could choose more than one option and write other adjectives to answer that question. The questionnaire used is at the end of this study.

Data were tabulated in a Microsoft Excel spreadsheet, analyzed descriptively, with calcula-

tion of mean, standard deviations and proportions, and arranged through tables and graphs.

Results

32 speech therapists answered the questionnaire, 30 (93.75%) women and two men (6.25%), with a mean age of 25 years and 1 month (SD+1.64). Based on the number of graduates provided by the course secretariat, 61.53% of graduates from the institution were interviewed. Table 1 presents sociodemographic, labor and history of infection with the new coronavirus information of the participants and their families. Of the professionals infected by the virus, 3 work in hospitals and one in a clinic. Of the 6 unemployed, 4 claimed that unemployment occurred because of the pandemic.

Table 1. Main characteristics of the participants (n= 32)

	n	%
Gender	32	100%
Female	30	93.75%
Male	2	6.25%
Age	Mean	Standard Deviation
-	25.1	1.64
Marital Status	n	%
Single	29	90.6%
Stable union	2	6.25%
Married	1	3.125%
Course completion semester	n	%
2018/1	9	28.12%
2018/2	7	21.8%
2019/1	5	15.6%
2019/2	11	34.3%
Situation	n	%
Unemployed	6	18.75%
Employee	26	81.25%
Exercising another profession	0	-
Weekly workload	n	%
≤ 20h	6	23.0%
≤ 30h	6	23.0%
≤ 40h	8	30.7%
> 40h	6	23.0%
Number of jobs	n	%
1	17	65.3%
≥ 2	9	34.6%

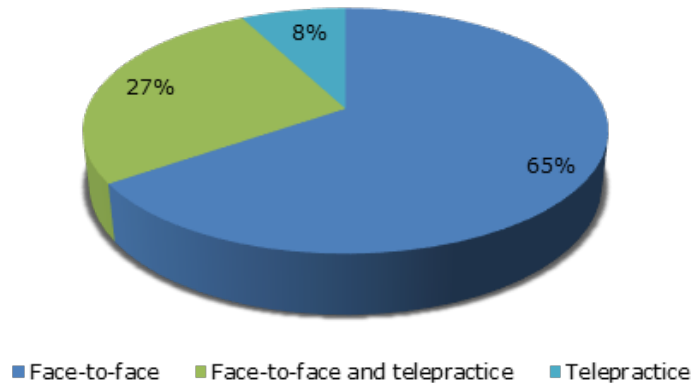
	n	%
Workplace	n	%
Clinic	17	48.5%
Hospital	3	8.5%
Ambulatory	2	5.7%
Home-care	6	17.1%
APAE	4	11.4%
UBS	1	2.8%
Telepractice	2	5.7%
Coronavirus Infections	n	%
Not infected	28	87.5%
Infected	4	11.4%
Infections among family	n	%
No infected relatives	12	37.5%
At least one infected in the family	20	62.5%

Captions: n= number; APAE= Association of Parents and Friends of Exceptional Children; UBS= basic health unit; h= hours.

As noted in the table above, 81.25% of the participants reported exercising their profession at the time of data collection. Of these, more than

half work in person, a little more than ¼ work remotely and in person and few work only remotely, see graph 1.

Graph 1. Percentage of speech-language pathologists according to the type of work (n=26).



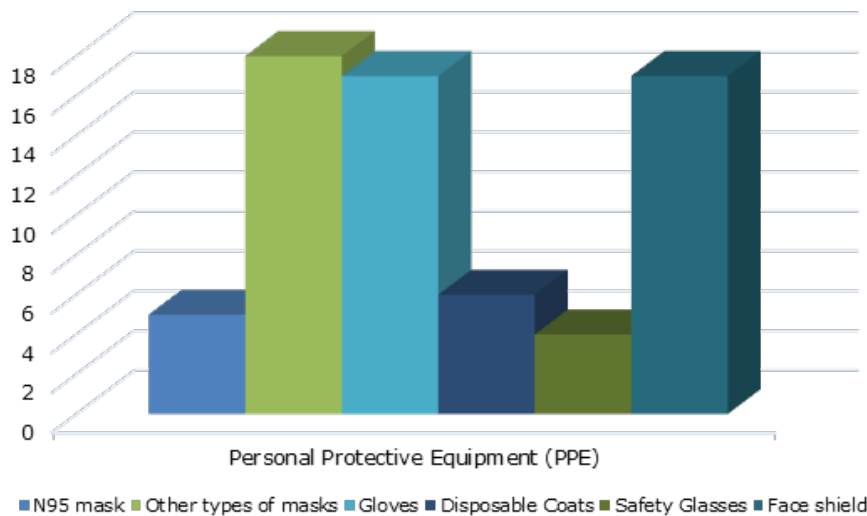
Impacts on the profession

When asked if there was a change in salary due to the new coronavirus pandemic, 7 (21.9%) answered that they did not work as a speech therapist before the pandemic; for another 7 (21.9%), the salary is the same. The salary increased for two (6.2%) participants and decreased for 10 (31.3%) speech therapists. Remember that 6 (18.7%) participants reported being unemployed, 4 (66.6%) of these because of the pandemic.

Still on those who were exercising the profession (n=26), one reported not receiving any personal protective equipment (PPE); two answered that they do not work in situations where the PPE is necessary for the performance; 13 claimed that the company provides PPE and another 10 replied that they use it, but they need to buy this equipment.

A list of PPE was made available for participants to mark which equipment they were using during the pandemic. Masks other than N95 were the most mentioned (69.3%), followed by gloves (65.4%) and face shields (65.4%), see graph 2.

Graph 2. PPE used by newly graduated speech-language pathologists during the COVID-19 pandemic (n=26).



Captions: N95= máscara modelo N95.

Resolutions of the Federal Council of Speech-Language Pathology

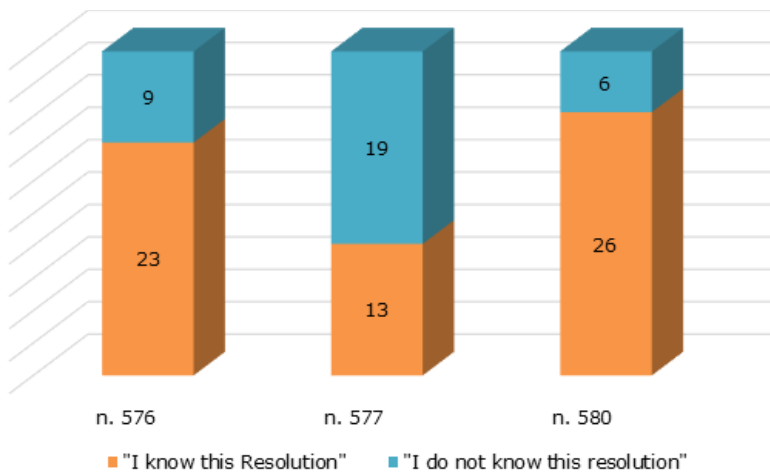
Participants' knowledge of Resolutions n. 576, 577 and 580 are shown in Graph 3. It is observed that the most known Resolution among the participants was number 580.

Participants were asked if they believed that the doubts regarding the role of the speech therapist during the new coronavirus pandemic were correctly resolved with the Resolutions and recom-

mendations by the CFFa. 12 (37.5%) participants said "no", 10 (31.3%) said "yes" and another 10 (31.3%) said they did not know how to give their opinion on this subject.

Those who practiced the profession were asked if they believed they were following the norms of the Federal Council of the profession. Of these, only 7 (26.9%) believed they were not acting according to the rules of CFFa.

Graph 3. Knowledge of newly graduated speech-language pathologists about the Resolutions published by the CFFa (n=32).



Academic education

Participants were asked whether undergraduate teachings helped them to practice for cases of COVID-19 and other urgent/emerging cases.

For the cases of COVID-19, 11 (42.3%) participants reported that their graduation was indifferent to this aid; for 10 (38.4%), the undergraduate teachings helped in this performance, and 5 (19.2%) reported that it did not help them.

When asked if they think that graduation in Speech-Language Pathology helps future professionals with regard to telehealth, 9 agree, 4 are indifferent, and 19 disagree. Those who disagreed with this statement received 17 responses regarding the main challenges.

The “lack of telehealth structure and techniques” was mentioned by 6 (35.3%) participants, the “absence of this discussion in graduation” by another 6 (35.3%), and the “little technological knowledge about this modality” by another 5 (29.4%). For example, the report of one of the participants that says:

“...Our clinical practice is based on face-to-face assistance. Without practice, exchange of experience, we are not able to do a good online service right away, not to mention the materials that are crucial during the exercises, which sometimes the patient cannot obtain or adopt. We were not exposed to the practice or to the content about programming, ap-

plications, and installation so you can have at least a notion of where to start preparing for telehealth, because it is necessary to have a base in this branch of information technology specifically in the items.”

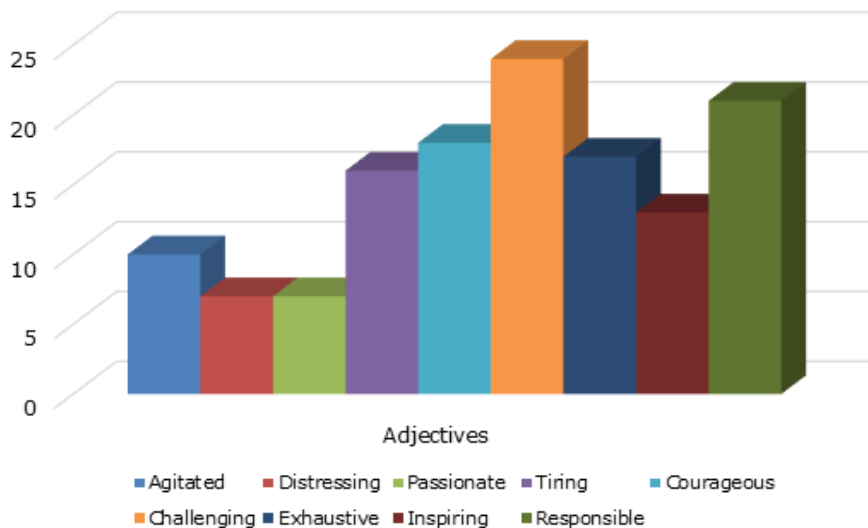
When asked about urgent/emerging cases, 14 (43.8%) reported that the graduation in Speech-Language Pathology has challenges/difficulties to teach students about urgent and emerging cases, but only 10 (31.3%) spoke about the subject. For all of these, the course did not offer practical experience in these cases, only theory.

Fears and conceptions during the care of COVID-19 cases

Seven participants (26.9%) among those currently working in the profession attended sessions with patients with COVID-19. What were the main fears was questioned, and all mentioned the same item: contamination for family members and/or others.

As for the adjectives of the profession in the cases of COVID-19, participants could choose more than one option and write other adjectives for this question; however, none described other characteristics. “Challenging” was the most cited by most, followed by “responsible”, “courageous”, “exhausting”, and “tiring”, the latter mentioned by half of the graduates, as shown in Graph 4.

Graph 4. Characteristics of speech-language pathology performance in cases of COVID-19 according to newly graduated speech-language pathologists (n=32).





Discussion

According to the availability of the course's vacancies at this higher education institution (HEI), 25 vacancies are offered per semester, that is, 50 annual vacancies¹². Therefore, when considering the period of two years, or four semesters, and not considering the evasion of some of the students, it was expected that 100 speech therapists would have completed the course in this period. However, in contact with the collegiate body of this HEI, 52 people took their degree in the last 24 months. Thus, just over 60% of this population participated in this study. However, attention is drawn to this number of graduates in the course over these months, since just over half of the freshmen completed their graduation. Although it is not the main subject of this study, this issue in the area has already been mentioned in the literature¹³, and deserves the attention of researchers and professional advice as to the reasons for the low number of graduates.

Among the participants, the majority of the sample was composed of women. Women are the majority in higher education and in courses in the area of health¹⁴, such as Speech, Language and Hearing Sciences¹⁵. The high number of female participants in this study supports the idea that women represent the majority of Speech-Language Pathology professionals and, therefore, they were the majority in this study.

Most of the graduates of this HEI were working during the period of data collection in this study, and about 18% were unemployed. Of those in the profession, most work in a clinic, usually 30 to 40 hours a week and in a job. When compared to Physiotherapy professionals, for example, who must practice their profession within 30 hours a week¹⁶, SLP seem to have a longer weekly workload. Considering the possible wear and tear of the profession or even that these professionals may wish to start postgraduate courses or other academic stages, it is believed that the fact that they do not have legislative definitions about this and other aspects of the profession can negatively impact their life and professional and personal growth of these professionals. Therefore, attention is drawn to the labor aspects of this public.

As for the unemployed, most reported having lost their jobs because of the new coronavirus pandemic. Other professionals also perceived this impact, whether in the health area or not. Accord-

ing to the Brazilian Institute of Geography and Statistics (IBGE), unemployment in the country reached the mark of 12.8 million people (13.3%) in the second quarter of the year¹⁷. Furthermore, most unemployed Brazilians are in the age group of 25 to 39 years old, an age group close to that of the participants in this study¹⁷. With so many implications, it is difficult to attribute only one factor to the unemployment of speech therapists and other professionals. In addition, to obtain an income, many may opt for informal work and/or still not exercise the profession in which they graduated because they were unable to enter the labor market. It is important that Government and other federal agencies to reflect these data and try to minimize these impacts on the economy of these and many other professionals.

Regarding infections by the new coronavirus, three out of four professionals who reported having the infection worked in hospitals. Attention is drawn to the vulnerability of these professionals in the hospital environment. Even with the use of adequate PPE, it is a highly contagious virus¹⁸, and many health professionals, in addition to SLP, have been infected¹⁹. According to data from the Health Department of the State of Espírito Santo, the state in which the collection took place, around 12% of health professionals in the state were infected from March to November 2020²⁰. Therefore, the SLP and other health professionals should pay attention to the practices and use of PPE, aiming to minimize the risk of virus infection.

As for the performance modality, most participants were working face-to-face, and few reported exercising remotely or both. Since the regulation of the SLP profession, on December 9, 1981, by Law No. 6.965, its performance is mostly performed in person. However, with the new coronavirus pandemic and the CFFa publications on CFFa Resolution No. 580 and its practice guidelines, discussions on this performance modality have been expanded. In recent years, telehealth, more specifically, telepractice in Speech-Language Pathology has been expanding throughout the country²¹, and, therefore, it is believed that this model will be expanded. Thus, practice in Speech-Language Pathology and telehealth, in general, will still be intensively developed, and situations such as the new coronavirus pandemic, in which social distancing measures were adopted, contributes for

the use of technology for communication, whether personal or professional.

Therefore, we emphasize the importance of studies on this modality of teaching and acting. Although there is much debate about the challenges of this form of work, such as the humanization of care, it is believed that remote care can contribute, among other demands, to the labor market, reducing unemployment.

We also highlight the unemployment of some of the participants in this research. Although they are few, unemployment occurred because of the pandemic decreed in March 2020. This can lead to other difficulties in the lives of these professionals, such as financial difficulties - since there is the possibility of these professionals depending only on their income - and psychological difficulties, being one of the main factors for worsening anxiety, depression and hopelessness²².

In addition to the unemployed, the financial impacts can also be observed on participants who were working in the profession. Due to the new coronavirus pandemic, most speech therapists had their salary reduced, when compared to moments before the pandemic was declared. The professional dissatisfaction of Speech-Language Pathologists is a point already discussed in the literature²³. Although this topic was not addressed in our study, it is a matter of concern in relation to the valuation of the professional, since, until then, there is no salary floor for all areas of the profession in the country or for each region of CFFa, nor the maximum weekly workload for these Brazilian professionals, important factors that may be closely linked to job satisfaction. Therefore, it deserves discussion in future studies.

As for the PPE purchasing process, most participants reported that the company they work for provides it. As for the use of equipment, other masks (not N95), gloves and face shield were the most mentioned. Gloves and face shield also help to protect the professional due to their effectiveness. However, all PPE and its use processes require specific care. However, the objective of this study was not to analyze the knowledge about the new coronavirus or even the use of PPE required for clinicians. Therefore, the factor has not been researched. However, with regard to the aforementioned PPE, it should be noted that the use of such equipment must be conscientious, respecting the

time limits, for example, of each one. So must be the use of the mask, *exempli gratia*.

Furthermore, N95 masks protect these professionals more effectively and should be prioritized by health professionals²⁴. It is understood that the acquisition of so many PPEs may have a financial impact, for both - professionals and employers. However, we emphasize the importance of proper preparation and use of PPE in any speech-language therapy, essential for personal protection and protection of others. Therefore, inspection of the use of this process must be rigorously carried out. It is believed that this control will provide even more security for everyone involved.

About 70% of the participants reported to have knowledge of Resolution CFFa n. 576 and approximately 80% answered to have been aware of Resolution CFFa n.580. It is suggested that this extensive knowledge is due to the practice of some of these professionals in outpatient clinics and in a telehealth format. In addition, the CFFa already had other Resolutions referring to remote care²⁵, and we believed that, due to the pandemic, the search for telehealth grew in Brazil, which may have influenced this result. However, few professionals reported to know the CFFa Resolution n. 577 (which deals with the role of the SLP in home-care services and long-term institutions). It is suggested that this result was influenced by the lack of experience of participants in these work environments or by the recent publication date of the Resolution (June 2020). As these are hypotheses, studies that discuss deeply this knowledge of Resolutions among these professionals are suggested. It is believed that the results can provide important data for CFFa, as well as for professionals.

When asked about the relationship between undergraduate teaching and COVID-19 cases, most professionals reported that undergraduate education was indifferent. However, for most of the graduates, the graduation helped them fully in the care of these cases. However, when asked about the teaching of telehealth at graduation, most said that the training did not help them in terms of telehealth. The SLP profession is essentially face-to-face. However, this type of work is effective in the profession, especially during the pandemic²⁶. However, there is still a lot to be discussed about this modality, such as its implementation in undergraduate teaching and the necessary structures for the performance



of telepractice in Speech-Language Pathology as mentioned by the participants.

This debate has been held between the CFFa and professionals with experience in the subject, as seen in its recent publications, such as the Resolution on telepractice in Speech-Language Pathology⁹ and its guidelines for good practices in this modality²⁷. These discussions will provide important reflections and results regarding their achievement in the graduation and professional performance.

Regarding the care of urgent/emerging cases, 14 participants reported that graduation has challenges for teaching about these cases. All reports referred to little practical experience in these cases during training in university. It is known that there are cases of COVID-19 considered as severe, in which patients need mechanical respirators or other supplies²⁸. Therefore, SLP who work in these cases must know the basic clinical management for these patients. However, it is necessary that the training in Speech-Language Pathology discuss these issues to prepare their undergraduates in an even better way.

Of the professionals who worked directly in cases of COVID-19, the main fear was the transmission of the virus to other people in their family, as well as other professionals²⁹. The infection rate of any family member of these participants reached more than 60% in this study, which may represent an alarming fact, considering that these professionals, although they may not have been infected, could transmit the virus indirectly. However, it is known that these family members may have been infected in other environments, which is difficult to be precise and affirm. Therefore, it is suggested that professionals and their families comply with the hygiene standards suggested by the WHO and other health agencies.

From the characteristics pointed out by the participants about the Speech-Language Pathology role in cases of COVID-19, it is observed that most participants report challenges regarding this role, which must be responsible, courageous, but also becomes exhausting. These challenges have been exhaustively faced by SLP, whether on the front line in the battle against the new coronavirus or in facing so many impacts encountered during the beginning of their career. This study sought to understand these impacts and help to understand them to also help in future public policies that aim to minimize the difficulties of the beginning of the career.

Conclusion

Most of the newly graduated speech-language pathologists at this institution are working face-to-face in cases of COVID-19 and in other cases, using adequate equipment, usually provided by the company they work. However, for some, unemployment occurred because of the pandemic and, for most, the salary has decreased when compared to before the arrival of the new coronavirus in Brazil.

Most participants showed knowledge about the CFFa Resolutions, although knowledge about the Resolution on home care and long-term care institutions was less mentioned by the participants.

Although graduation helped most of the participants regarding procedures in cases of coronavirus, they reported challenges in terms of teaching undergraduate courses about speech therapy in telehealth and urgency/emergency cases.

The newly graduated speech therapists described challenges regarding speech therapy in cases of COVID-19, which is courageous, responsible, but exhaustive. These challenges have been faced by these professionals, but they can negatively impact their professional and personal lives, which should be studied and deepened by future studies and representative bodies of the profession.

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ATTACHMENTS**Chart 1.** Questionnaire used to obtain research data.

1. Name:
2. Date of birth:
3. Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Other: _____
4. Marital status: <input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Stable union <input type="checkbox"/> Other:
5. Course completion semester <input type="checkbox"/> 2018/1 <input type="checkbox"/> 2018/2 <input type="checkbox"/> 2019/1 <input type="checkbox"/> 2019/2
6. Institution where you completed the course:
7. Have you been diagnosed with COVID-19? <input type="checkbox"/> Yes <input type="checkbox"/> No
8. Have any family members been diagnosed with COVID-19? <input type="checkbox"/> Yes <input type="checkbox"/> No
9. Currently, you are: <input type="checkbox"/> Working as a SLP <input type="checkbox"/> Unemployed <input type="checkbox"/> Exercising another profession
10. What is your weekly workload? (Only those who marked "I am working as a SLP" on item 9 respond) <input type="checkbox"/> ≤ 20h <input type="checkbox"/> ≤ 30h <input type="checkbox"/> ≤ 40h <input type="checkbox"/> > 40h
11. Are you acting face-to-face or remotely? (Only those who marked "I am working as a SLP" on item 9 respond) <input type="checkbox"/> Face-to-face (in person) <input type="checkbox"/> Telepractice <input type="checkbox"/> Face-to-face and telepractice
12. If in person, in which places do you work? (Only those who marked "I am working as a SLP" on item 9 respond) <input type="checkbox"/> Hospital <input type="checkbox"/> Ambulatory <input type="checkbox"/> Home-care <input type="checkbox"/> Clinic <input type="checkbox"/> I am not working in person. Others:
13. If you were working as a SLP before the pandemic, did your monthly earnings change? (Only those who marked "I am working as a SLP" on item 9 respond) <input type="checkbox"/> Yes, my salary during the pandemic is lower <input type="checkbox"/> Yes, my salary during the pandemic is higher <input type="checkbox"/> No, my salary remains the same <input type="checkbox"/> I was not working as a speech therapist (a) before the pandemic. Other:
14. If you are unemployed, did unemployment occur because of the COVID-19 pandemic? (Only those who marked "unemployed" on item 9 respond) <input type="checkbox"/> Yes <input type="checkbox"/> No
15. Did you change professions because of the COVID-19 pandemic? (Only those who marked "I exercise another profession" on item 9 respond) <input type="checkbox"/> Yes <input type="checkbox"/> No
16. Do you have access to the PPE suggested by health agencies to care for patients diagnosed with COVID-19? (Only those who marked "I am working as a SLP" or "I exercise another profession" on item 9 respond). <input type="checkbox"/> No <input type="checkbox"/> Yes, the company I work for provides PPE. <input type="checkbox"/> Yes, but I'm the one who buys my PPE <input type="checkbox"/> I am not working in situations where I need PPE.
17. If the previous answer was "YES", what equipment do you buy or does the company supply? (Only those who marked "I am working as a SLP" or "I exercise another profession" on item 9 respond). <input type="checkbox"/> Gloves <input type="checkbox"/> N95 masks or equivalent <input type="checkbox"/> Other types of masks <input type="checkbox"/> Disposable coats <input type="checkbox"/> Safety glasses <input type="checkbox"/> Face shield <input type="checkbox"/> Healthcare shoes Others:
18. Do you know the Resolution of the Brazilian Federal Council of Speech, Language and Hearing Sciences on Telepractice (n. 580/2020)? <input type="checkbox"/> Yes <input type="checkbox"/> No

19. Do you know the Resolution of the Brazilian Federal Council of Speech, Language and Hearing Sciences on outpatient care (n. 576/2020)? <input type="checkbox"/> Yes <input type="checkbox"/> No
20. Do you know the Resolution of the Brazilian Federal Council of Speech, Language and Hearing Sciences on home-care or long-term institution (n. 577/2020)? <input type="checkbox"/> Yes <input type="checkbox"/> No
21. Do you believe that you are respecting the Resolutions of the Brazilian Federal Council of Speech, Language and Hearing Sciences? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I am not working at the moment OR I don't work as SLP.
22. Do you think that the Brazilian Federal Council of Speech, Language and Hearing Sciences correctly solved the doubts about the role of SLPs during the new coronavirus pandemic with the resolutions and recommendations? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I have no opinion about it.
23. Do you believe that your graduation training helped you during the care of suspected or confirmed cases of COVID-19 or urgent/emerging cases? <input type="checkbox"/> Yes, undergraduate teaching helped me in these cases. <input type="checkbox"/> I think it was indifferent <input type="checkbox"/> No, the undergraduate teaching did not help me in these cases. <input type="checkbox"/> I am not currently working OR I do not work as a SLP
24. Do you agree that the graduation in Speech-Language Pathology helps future professionals with telepractice? <input type="checkbox"/> I agree <input type="checkbox"/> Neither agree nor disagree <input type="checkbox"/> I disagree
25. If your previous answer was "I agree", cite challenges/difficulties of undergraduate Speech-Language Pathology courses to teach students about telepractice.
26. Do you agree that the graduation in Speech-Language Pathology has challenges/difficulties to teach students about urgent and emerging cases <input type="checkbox"/> I agree <input type="checkbox"/> Neither agree nor disagree <input type="checkbox"/> I disagree
27. If your previous answer was "I agree", cite challenges/difficulties of undergraduate Speech-Language Pathology courses to teach students about urgent and emerging cases.
28. Have you ever performed any procedure in at least one patient diagnosed with COVID-19? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable
29. If the previous answer was "yes", what were/are your main fears during these consultations?
30. In this question, you will read a list of adjectives about the role of the speech-language pathology in cases of COVID-19. Check those in which you think the role of these professionals is better defined. If you prefer, add another adjective in the option "others". <input type="checkbox"/> Easy <input type="checkbox"/> Hard <input type="checkbox"/> Exhaustive/tiring <input type="checkbox"/> Calm/quiet <input type="checkbox"/> Agitated <input type="checkbox"/> Challenging <input type="checkbox"/> Courageous <input type="checkbox"/> Responsible <input type="checkbox"/> Distressing <input type="checkbox"/> Passionate <input type="checkbox"/> Inspiring Others