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Original Article

The Experience of Speech-Language Therapists with Telepractice for Adults and Older Adults During the COVID-19 Pandemic in Chile

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ABSTRACT

Telepractice, as a strategy for remote care, has a long history in the field of speech-language therapy in developed countries, and gained sudden prominence in Chile due to the COVID-19 pandemic. This study aims to characterize the teletherapy provided to adults and older adults by speech-language therapists during the healthcare crisis. A survey was administered to 38 speech-language therapists. Subsequently, the responses were analyzed by topic, after which descriptive statistics were used in the form of Fischer's exact tests. Most patients were between 60 and 79 years old and enrolled in Fondo Nacional de Salud (National Health Fund). Significant barriers were identified, related to digital literacy, access to a device, and the environment of the patient. However, facilitators were also highlighted, including ongoing access to therapy, reduced travel times, and the ability to work with co-therapists. When comparing public and private sector care, significant differences were found in the quality of the environment (p=0.03) and digital literacy (p=0.008). In conclusion, participants noted more barriers than facilitators in implementing telepractice during the pandemic. Nevertheless, they consider it an effective tool that can complement in-person care. It is crucial to develop best practices for telepractice, considering barriers related to material resources that may limit access. Additionally, this modality should be included in the training of speech-language therapists.

Keywords:
Telepractice; COVID-19; Barriers; Facilitators; Speech-Language Therapy

Experiencia de fonoaudiólogos sobre la atención por telepráctica a personas adultas y mayores durante la pandemia por COVID-19 en Chile

RESUMEN

La telepráctica es una estrategia de atención remota con una larga trayectoria en el campo de la fonoaudiología en países desarrollados, que cobró relevancia en Chile de manera abrupta debido a la pandemia de COVID-19. Este estudio tiene como objetivo caracterizar la atención por telepráctica brindada por fonoaudiólogos a personas adultas y mayores durante la crisis sanitaria. Se aplicó una encuesta a 38 fonoaudiólogos, que fueron analizadas temáticamente y luego se realizó un análisis estadístico descriptivo con las pruebas exactas de Fischer. Las entrevistas mostraron que la mayoría de los pacientes tenían entre 60 y 79 años y estaban afiliados al Fondo Nacional de Salud. Se identificaron barreras importantes relacionadas con la alfabetización digital, el acceso a dispositivos y el entorno de los usuarios. Sin embargo, también destacaron factores facilitadores, como el acceso continuo a terapias, la reducción de los tiempos de traslado y la posibilidad de trabajar con coterapeutas. Al comparar la atención en el sector público y privado, se encontraron diferencias significativas en la calidad del entorno de los usuarios (p=0.03) y la alfabetización digital (p=0.008). En conclusión, los participantes señalaron más barreras que facilitadores en la implementación de la telepráctica durante la pandemia. A pesar de ello, la consideran una herramienta eficaz que puede complementar la atención presencial. Es crucial desarrollar buenas prácticas para la atención remota, teniendo en cuenta las barreras relacionadas con los recursos materiales que pueden limitar el acceso. Además, se deben considerar las implicaciones de esta modalidad en la formación de los fonoaudiólogos.

Palabras clave:
Telepráctica; COVID-19; Barreras; Facilitadores; Fonoaudiología

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INTRODUCTION

The COVID-19 pandemic, declared in March 2020 (World Health Organization [WHO], 2020), had a profound impact in Chile, which was reflected in the implementation of quarantines and a state of emergency. During this period, social and economic inequalities were exacerbated since many jobs were lost, affecting people's income and mental health (Economic Commission for Latin America and the Caribbean [ECLAC], 2022). In the healthcare field, remote care was adopted (especially for older and chronically ill people), through telemedicine and/or telehealth (*Centro Nacional en Sistemas de Información en Salud* [CENS], 2020). Similarly, in-person speech-language therapy support was suspended, giving way to telepractice. This term was coined by the American Speech-Language-Hearing Association (ASHA) to refer to speech-language therapy services, including counseling, assessment, and intervention, that were delivered remotely through communication technologies (ASHA, 2019).

At an international level, evidence shows that telepractice is beneficial for people with aphasia (Hill et al., 2009; Pitt et al., 2019), speech apraxia (Hill et al., 2009), and Parkinson's disease (Theodoros et al., 2019).

The methodology found in studies on telepractice ranges from controlled trials to case reports, including comparisons between in-person therapy and telepractice. The results report no difference regarding effectiveness between both methods. It is worth highlighting that the above-mentioned telepractice studies were carried out before the COVID-19 pandemic, in developed countries. The existing evidence on the use of telepractice during the pandemic is mostly about the experiences and perspectives of speech-language therapists. Telepractice during the pandemic has been positively evaluated by speech-language therapists in various countries, despite the difficulties in accessing technologies (Boey & Lefevere, 2022; de Cerqueira Oliveira et al., 2020; Gallant et al., 2023; Peh et al., 2023; Vrinda & Reni, 2020). Some studies highlight how confidence has improved regarding its use (Peh et al., 2023) while others indicate the importance of context and a preference for hybrid formats (Kwok et al., 2022). Certain professionals consider telepractice less effective than in-person therapy but acknowledge that it is applicable to speech-language therapy (Fong et al., 2021).

Chilean speech-language therapists working with children state not being satisfied with their telepractice experience during the pandemic. They emphasize the level of demand, reduced effectivity, pressures felt due to a lack of training, and improvised implementation (Mora-Pino et al., 2023). Additionally, they highlight barriers such as connection quality and insufficient supplies, which result in mostly asynchronous and/or mixed interventions (San Martín & Gutiérrez, 2021). On the other hand, the relevance of caregiver commitment and support for therapeutic success is underlined. The situation changes when it comes to working with adults since people who access speech therapy through telepractice express high satisfaction with the care they receive (Becerra Henríquez et al., 2021). This level of satisfaction may be because telepractice facilitates access to and continuity of care.

Regarding access, telepractice allows professionals to support people living in rural areas that are far from health centers, and where transportation is difficult (Swales et al., 2020). Furthermore, it enables the delivery of specialized care in areas without specialists (Dimer et al., 2020). This is beneficial for people with Amyotrophic Lateral Sclerosis (ALS) and their carers regarding time, costs, and travel logistics since remote care saves them from traveling to health centers and decreases job absenteeism for carers (S. Pinto et al., 2020). During the period of quarantine due to the pandemic, telepractice made it possible to continue with healthcare practices without the risk of COVID-19 contagion (WHO, 2020).

On the other hand, speech therapy telepractice requires training, availability of assessment instruments, and the time necessary for this type of intervention. Concerning telepractice in Chile, it is noteworthy that there are no previous studies describing undergraduate training on this matter. The curricula do not usually incorporate subjects related to telepractice, at least before the pandemic. However, Universidad de Concepción stands out in this context, having been offering the course "*Introducción a la Telemedicina*" (Introduction to Telemedicine) to students from various degrees (Medicine, Obstetrics, Medical Technology, Physiotherapy, Speech-Language Therapy, and Nursing) for ten years (Avendaño et al., 2017). No Chilean studies have been found on training for speech therapists in telepractice with adults and/or older people. Conversely, there are records of speech-language therapists reporting that one of the challenges of providing telepractice for children with Developmental Language Disorder (DLD) in educational settings is not having previous experience or training in this area (Mora-Pino et al., 2023).

In regards to assessment, this is performed using internationally standardized instruments, with studies demonstrating their efficacy in telepractice settings (Coleman et al., 2015). In persons with severe aphasia, however, their applicability might be limited (Hill et al., 2009). Despite the relevance of these instruments, very few of them have evidence supporting their application in virtual

sessions. Among these, we can find the Boston Naming Test (short version), the Boston Diagnostic Aphasia Examination (short version), and the Western Aphasia Battery-Revised (Dekhtyar et al., 2020). There are no standardized tests available in Chile, with the exception of *Prueba Exploratoria del Léxico en Afasias* (Peña et al., 2015); therefore, professionals resort to informal methods and observation checklists in their clinical practice (Tobar-Fredes & Toledo-Rodríguez, 2021). Neither Prueba Exploratoria del Léxico en Afasias (Peña et al., 2015) nor informal methods/observation checklists are suitable for remote application. On the one hand, the evaluation of oral and facial structures, as well as speech and swallowing functions is challenging for telepractice. This is because physical contact is required, or the presence of a trained person who can be face-to-face with the patient while the therapist guides them synchronically (Sharma et al., 2012). The results of a survey administered to speech-language therapists in Australia and working with people with Parkinson's indicate that professionals prefer carrying out initial and follow-up assessments in person, even when the intervention is delivered by telepractice (Swales et al., 2020).

When it comes to intervention, telepractice demands more time for several reasons. Some of them are a lack of knowledge about its implementation, connectivity problems, and the need for material that is compatible with virtual formats (Ward et al., 2013).

Concerning ethical aspects, platforms that allow sensitive information of the supported people to be protected should be prioritized, as they help avoid the dissemination of data, in accordance with regulations established by law. This includes information such as personal data, procedures, medical history, and clinical records (*Regula los Derechos y Deberes que tienen las Personas en relación con Acciones vinculadas a su Atención de Salud* N° 20,584, 2012; *Sobre protección de la vida privada*, 1999). In other words, the use of informed consent must be ensured, whether written or verbal, in states of emergency such as the COVID-19 pandemic (CENS, 2020).

Telepractice requires that caregivers take on an active role. According to the experience of speech-language therapists and students in South Africa who supported children during the pandemic, this can be either an advantage, due to the possibility of participating in therapeutic processes, or a disadvantage if it is not always possible to have them present (Gallant et al., 2023; Watermeyer et al., 2022). Chilean speech-language therapists who implemented this practice in the educational context reported that including parents was a constant challenge (Mora-Pino et al., 2023). This is also mentioned by occupational therapists, who indicate that even though family participation is usually essential in healthcare, they are not always available to participate or their intervention is not satisfactory (Oliva Pezzani et al., 2022; Riendas-Moratilla & Cuesta-García, 2021). Although studies on telepractice in speech-language therapy with adults do not describe the role of families and/or caregivers, the information obtained from other disciplines functions as a precedent that should be considered when gauging the advantages and disadvantages of this modality.

Another aspect addressed in the literature is the socioeconomic conditions of the population that affect access to and continuity of telepractice, as there is a direct relationship between material conditions and internet connection (de Cerqueira Oliveira et al., 2020). Access to the internet and electronic devices is limited, unlike what happens in developed countries (Gallant et al., 2023). In addition, physical spaces must be adequate for therapeutic intervention to be possible (Gallant et al., 2023), and healthcare institutions should have adequate infrastructure (Prvu Bettger et al., 2020).

There is little evidence in Chile on the implementation of telepractice in speech-language therapy, particularly in the adult population. However, there are experiences showing facilitators and barriers similar to those described in the care of children with DLD (Mora-Pino et al., 2023), people with dementia (A. Pinto et al., 2020), and in occupational therapy (Oliva Pezzani et al., 2022).

Due to the scarcity of literature reporting on the experience of telepractice with adults during the COVID-19 pandemic in Chile, and considering that it could be a useful and efficient tool for delivering speech therapy services, this study is proposed.

The objectives of this research are: a) To characterize the telepractice support provided by speech-language therapists in Chile to adults and older people during the COVID-19 pandemic, and b) to describe the barriers and facilitators found by speech-language therapists in their experiences with telepractice.

METHODOLOGY

This is a descriptive, cross-sectional study using mixed quantitative and qualitative methods, and comprised of two stages:

1. Creation of the survey.
2. Application of the survey.

The study was approved by the Ethics Committee for Research in Humans of the Faculty of Medicine, Universidad de Chile, under code 226-2020.

1. Creation of the Survey

Elaborating the survey entailed the following steps:

a) Non-systematic literature review to generate the contents of the survey.
b) Content generation in question format.
c) Piloting stage, where three speech-language therapists working in the public and/or private sector participated. This made it possible to evaluate the format of the survey and ease of responding, as well as to detect redundant, irrelevant, or lengthy questions, among other aspects. The survey was created in Google Forms.
d) Content validation through expert judges working in telehealth. Each judge individually rated the instrument in four domains: sufficiency, coherence, relevance, and clarity (Escobar-Pérez & Cuervo-Martínez, 2008).
e) Quantification of the relevance of the judges' appraisal for each item, using Aiken's V Coefficient. The cut-off score was established at 0.75.

The structure of the survey was sectioned into the following domains:

a) Sociodemographic information of the participants: Age, location, working day, workplace, years since graduation, and telemedicine training.
b) Characteristics of their telepractice support: Use of platforms, session duration and frequency, diagnoses seen, use of informed consent, physical space where sessions were held and from where patients connected, assessment instruments, age groups of the patients, barriers and facilitators identified during the practice.
c) Perception of the participants about telepractice.

The questions were formulated in various formats such as open response, multiple choice response, Likert scale (1 to 5), and dichotomous questions (see Appendix 1).

2. Application of the Survey

The survey was applied to professionals who met the following inclusion criteria: Having a speech-language therapy degree, working in the public and/or private sector, and supporting adults and/or older adults with communication and/or swallowing disorders during the pandemic. Professionals working abroad were excluded since the research focused on differences found within the Chilean health system.

Participation was voluntary and informed consent forms were provided, which had to be signed by each participant. The sample was non-probabilistic and deliberate, as people who met the inclusion criteria were invited to participate (Burns et al., 2008).

The survey was sent to the professionals via electronic mail, and they were contacted through the same medium and/or through the social media of the Department of Speech-Language Therapy at Universidad de Chile, *Colegio de Fonoaudiólogos de Chile, Sociedad Chilena de Fonoaudiología*, and the researchers' social media. The survey was available between April and September of 2021.

Result Analysis

The quantitative data were analyzed and charted using the statistics software R (R Core Team, 2022). Descriptive analyses and non-parametric tests were applied to observe potential differences between speech-language therapists working in the public and private sectors. Fisher's exact tests were carried out for 2x2 contingency tables, to explore the association between the public/private factor and the response to questions about the sufficiency of digital literacy, video quality, quality and speed of internet connection, availability of assessment instruments, quality of the space of supported people, the impact of the pandemic on the participants' mental health, if telepractice replaces in-person care, and whether the professional invested in equipment and internet.

The qualitative results were obtained through a thematic analysis of the open questions in the survey (see Appendix 1), where the most recurring topics were grouped into subcategories, and the results of each one of them were compiled (Duque & Aristizábal Díaz-Granados, 2019; Howitt & Cramer, 2017). The qualitative analysis was performed by one of the researchers, who has experience in this type of research, and was advised by an expert on qualitative methodologies. A thematic analysis was also carried out for the open questions about facilitators and barriers identified by the participants in their telepractice. The subcategories were drawn from responses that were repeated in more than four surveys.

RESULTS

The results of the survey are presented below. First, the sociodemographic characteristics of the participants and the

characterization of the telepractice support are described. Second, the thematic analysis carried out on the open questions is addressed, focusing on identifying barriers and facilitators. Third, the results related to the participants' perceptions of telepractice and the factors that might influence it are detailed. Finally, the findings obtained through non-parametric test analysis for the differences between telepractice in the private and public sectors are exposed.

Sociodemographic Characteristics of the Participants and Telepractice

Thirty-eight speech-language therapists participated in this research. Their sociodemographic characteristics are presented in Table 1.

Regarding the characteristics of telepractice support, 50% of the participants worked in mixed modality (in person and remote), 42.1% remotely, and 7.9% exclusively in person.

Details about the most used platform, devices, duration and frequency of the sessions, conditions most frequently seen, the age range of the patient population, and their health insurance are presented in Figures 1-6.

Table 1. Sociodemographic description of the participants.

Variables	n (%) N=38
Sex	
Woman	28 (73.7%)
Man	10 (26.3%)
Region	
Metropolitana	15 (39.5%)
Valparaíso	13 (34.2%)
Tarapacá, O'Higgins, Araucanía	3 (7.9%)
Maule, Bío Bío	4 (10.5%)
Los Lagos	3 (7.9%)
Years since graduation	
0-5 Years	8 (21%)
5-10 Years	12 (31.6%)
10-15 Years	13 (34.2%)
15<	5 (13.2%)
¿Had you delivered telemedicine sessions before the pandemic?	
Yes	36 (94.7%)
No	2 (5.3%)
¿Have you been trained in telemedicine?	
Yes (courses, webinars, diplomas)	20 (52.6%)
No	18 (47.4%)
Practice sector	
Private	21 (55.3%)
Public	13 (34.2%)
Both (private and public)	4 (10.5%)
Contracted hours	
44 hr.	9 (23.7%)
43-33 hr.	4 (10.5%)
33-22 hr.	7 (18.4%)
22-11 hr.	10 (26.3%)
Different amount	8 (21.1%)
Time dedicated to telepractice	
Full Time	11 (28.9%)
Less than half of their hours	27 (71.1%)
Location where they deliver teletherapy	
Home	27 (71.1%)
Workplace	11 (28.9%)

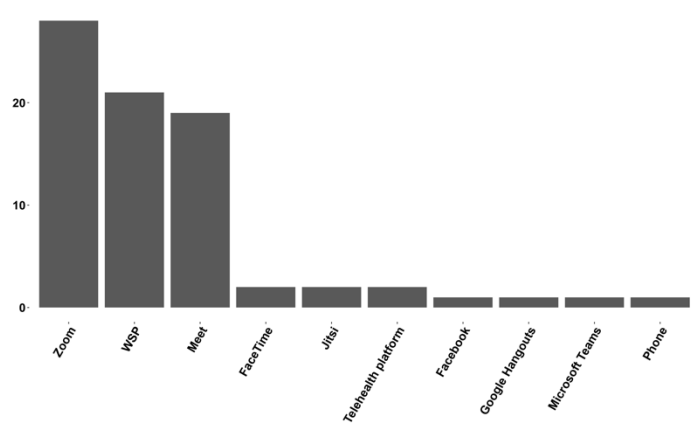

Figure 1. Platforms used for telepractice.

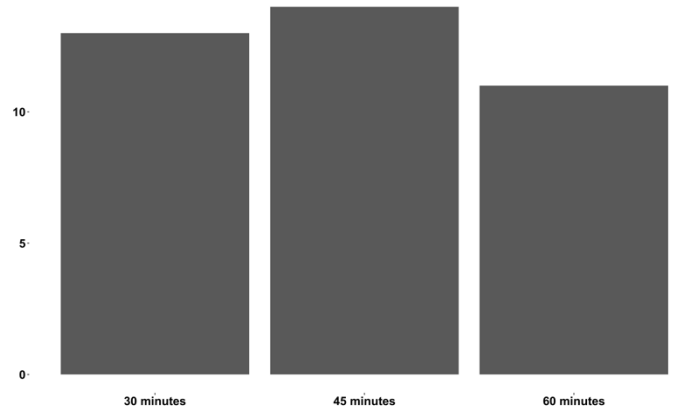

Figure 2. Duration of speech therapy telepractice sessions.

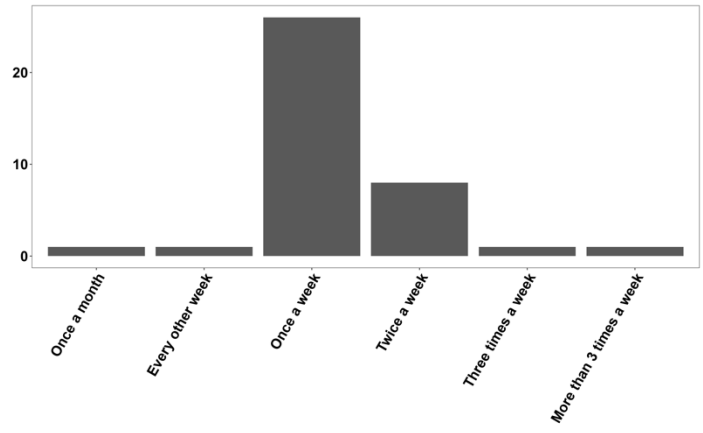

Figure 3. Frequency of the speech therapy telepractice sessions.

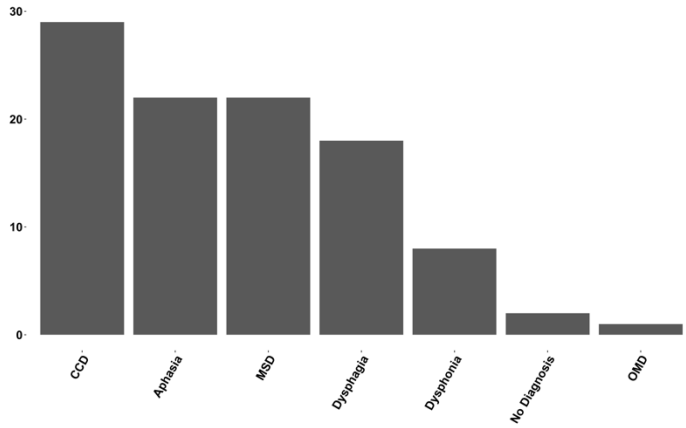

Figure 4. Frequency of the speech therapy diagnoses of people supported via telepractice.

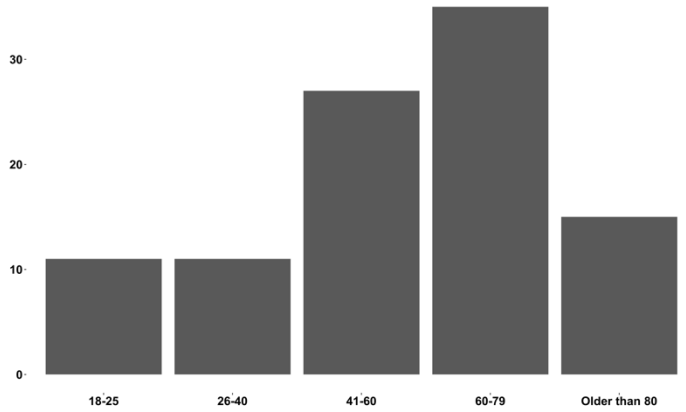

Figure 5. Age range of the people supported via telepractice.

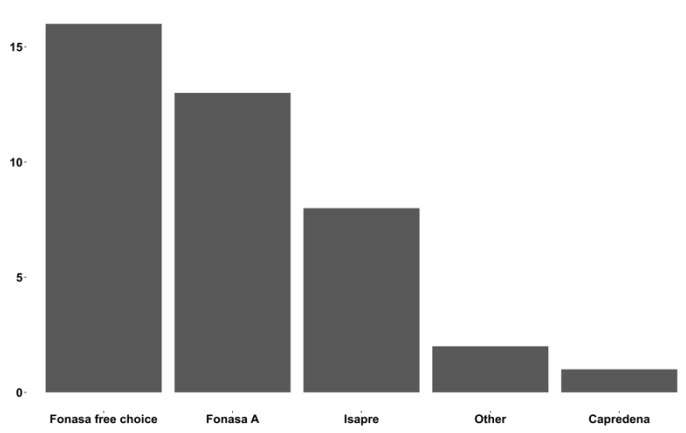

Figure 6. Types of healthcare insurance of people supported via telepractice.

Conditions During Telepractice

Of the participants, 55.3% responded that the internet connection of the supported people was regular, while 42.1% indicated it was good. Twenty-one percent (21.1%) of the sample indicated that the only means through which people accessed remote support was a Smartphone. Concerning home setting, 55.3% said that people had adequate space to connect to the sessions, while 44.7% mentioned that the space was not adequate regarding privacy, noise, and lighting.

Barriers and Facilitators in Telepractice

As a result of the thematic analysis based on the perceptions of the surveyed speech-language therapists, 5 facilitators and 9 barriers were obtained. This information is detailed in Table 2, where direct quotes from the participants can be found.

Table 2. Summary of categories and subcategories extracted from the surveys.

Categories (Questions)	Subcategories (Answers)	Quotes
Facilitators	1. Access to care	"Providing care independently of the geographic location of the service user/families" (E1). "The possibility to offer a higher number of sessions without the financial issue of commuting for both service users and therapists" (E19).
	2. Contextualized therapy	"It is possible to perform evaluations and rehabilitation in a much more real context such as the patient's workplace or home" (E8). "To be able to know the context and support network of the service user and adapt the interventions to said context" (E11).
	3. Access to a co-therapist	"To have a responsible communication partner who assumes the commitment to deliver telepractice sessions, added to the capacity the communication partner has regarding handling technology (computer-internet) "(E15). "To have the possibility to communicate more fluently with the family or caregivers" (E23)
	4. Access to technological tools	"There are various specialized platforms to provide telemedicine" (E20). "That my workplace provides a premium account in the platform where I carry out my practice/stable (private) Internet connection" (E23).
	5. Access to training in telemedicine	"Delivery of webinars and free information" (E10). "The offer to train in telemedicine is currently higher. There is specialized literature that reports evidence of the effects of different intervention programs implemented in the virtual modality, that offer orientations for clinical practice" (E20).
Barriers	1. Scarce digital literacy of supported people	"The adult population tends to have a limited knowledge of technological tools, which is why it was not possible to variate and play with the options for activities offered by the internet" (E2). "A lack of technology handling by older people, which often results in dependency" (E35).
	2. Issues with technology/device access	"Network connectivity problems" (E9). "That, except for a premium account for the platform I use, internet, hardware, and accessories are not provided by my workplace" (E23).
	3. Difficulties in the evaluation process	"It is impossible to objectively evaluate parameters such as muscle tone (through palpation) or breathing" (E8). "There are restrictions in the implementation of telepractice to carry out evaluation and diagnosis processes for cognitive, language, and communication impairments, because very few instruments are adapted and validated for the virtual format and, in their

		majority, they are not made for the Chilean population" (E20).
4.	Therapist's time investment	"Work overload to send information to patients and create video capsules, videos, PPT, handouts" (E7). "There is a bigger time investment by the professional to develop materials and activities adapted to the modality (from a person-centered perspective)" (E25).
5.	Lack of telepractice knowledge	"Lack of training in the area, self-training, and doubts regarding what is delivered" (E10). "Few undergraduate and postgraduate programs included telemedicine training; hence many professionals were not trained to perform assessments, diagnosis, and intervention procedures in this modality" (E20).
6.	Communication issues with the treating team	"Low level of control concerning the reception of other specialties when referring patients" (E6). "Difficulty to access medical history (clinical records) of people" (E14).
7.	Space	"There are domestic situations that interfere with the development of the session when it is delivered at home" (E8). "Many times, the therapists do not have enough space" (E11).
8.	Problems with the support network	"Communication partners who do not commit" (E15). "Lack of co-therapists" (E29).
9.	Fatigue due to excessive screentime	"Fatigue from being in front of a screen the entire workday" (E7). "The effectivity of language, speech and communication rehabilitation decreases, as well as the motivation of both therapists and patients due to screen use fatigue" (E31).

The participants were consulted on their perception of telepractice using a Likert scale ranging from 1 (very bad) to 5 (excellent), with 13.2% answering 'excellent' and 86.4% checking 3-4. There were no responses for the 'bad' and 'very bad' options. With regard to their perception of factors that could influence teletherapy, the participants responded on a scale that measured how much each factor impacted the sessions, which included the options Significantly, Considerably, Moderately, Slightly, or Not at All. The details of these responses can be found in Table 3. Finally, the professionals checked their degree of agreement with 19 statements that described beliefs about telepractice, based on a Likert scale ranging from 1 (Completely Disagree) to 5 (Completely Agree). Their answers can be found in Table 4.

Table 3. Perception of speech-language therapists of factors that may impact telepractice care.

Factors that Impact Telepractice Care	**Participant Perception of the Impact (n=38)**					
	Significantly n (%)	Considerably n (%)	Moderately n (%)	Slightly n (%)	Not at All n (%)	Does not Know / Not Applicable n (%)
1. Level of Knowledge of Virtual Platforms	18 (47.4)	14 (36.8)	3 (7.9)	3 (7.9)	0 (0)	0 (0)
2. Therapist's Access to Internet Connection	29 (76.3)	6 (15.8)	1 (2.6)	0 (0)	2 (5.3)	0 (0)
3. Quality of the Internet Connection	27 (71.1)	8 (21.1)	1 (2.6)	0 (0)	2 (5.3)	0 (0)
4. Therapist's Access to a Device (cellphone, computer)	25 (65.8)	6 (15.8)	4 (10.5)	1 (2.6)	2 (5.3)	0 (0)
5. Video and/or Audio Quality	19 (50.0)	15 (39.5)	2 (5.3)	2 (5.3)	0 (0)	0 (0)
6. Possibility to Access Clinical Records	12 (31.6)	10	9 (23.7)	2 (5.3)	5 (13.2)	0 (0)

		(26.3)				
7. Data Protection and confidentiality	12 (31.6)	9 (23.7)	5 (13.2)	8 (21.1)	3 (7.9)	0 (0)
8. Adequate Space to Deliver Sessions	20 (52.6)	10 (26.3)	3 (7.9)	4 (10.5)	1 (2.6)	0 (0)
9. Availability of Assessment Instruments	12 (31.6)	8 (21.1)	8 (21.1)	9 (23.7)	1 (2.6)	0 (0)
10. Time Available to Create Material	18 (47.4)	15 (39.5)	2 (5.3)	2 (5.3)	1 (2,6)	0 (0)
11. Age of the Patient	7 (18.4)	12 (31.6)	14 (36.8)	3 (7.9)	2 (5.3)	0 (0)
12. Patient's Access to a Device (Cellphone, Computer)	26 (68.4)	10 (26.3)	0 (0)	2 (5.3)	0 (0)	0 (0)
13. Patient's Access to Internet Connection	27 (71.1)	9 (23.7)	0 (0)	2 (5.3)	0 (0)	0 (0)
14. Patient's Educational Level	7 (18.4)	12 (31.6)	11 (28.9)	8 (21.1)	0 (0)	0 (0)
15. Presence of Family Members to Support the Session	18 (47.4)	12 (31.6)	6 (15.8)	1 (2.6)	0 (0)	0 (0)
16. Level of Severity of the Patient's Condition	22 (57.9)	8 (21.1)	6 (15.8)	2 (5.3)	0 (0)	0 (0)
17. Patient's Digital Literacy Level	19 (50.0)	9 (23.7)	10 (26.3)	0 (0)	0 (0)	0 (0)

Table 4. Beliefs of speech-language therapists in the context of the socio-sanitary crisis due to COVID-19.

Statements about Telepractice	**Participant Responses (n=38)**				
	1 Completely Disagree n (%)	2 Disagree n (%)	3 Do not Agree or Disagree n (%)	4 Agree n (%)	5 Completely Agree n (%)
1. The severity of the communication and/or swallowing disorder hinders the delivery of synchronic telepractice sessions.	0 (0)	4 (10.5)	7 (18.4)	12 7(31.6)	15 (39.5)
2. It is necessary to be trained in telemedicine to be able to implement it.	0 (0)	2 (5.3)	17 (44.7)	7 (18.4)	12 (31.6)
3. It is necessary that patients have a private, quiet space for the delivery of teleconsultations.	0 (0)	0 (0)	3 (7.9)	16 (42.1)	19 (50.0)
4. Telepractice can replace in-person care.	5 (13.2)	11 (28.9)	11 (28.9)	5 (13.2)	6 (15.8)
5. Telepractice can complement in-person care.	1 (2.6)	0 (0)	1 (2.6)	2 (5.3)	34 (89.5)
6. It is necessary to have at least one person who acts as a co-therapist for therapy success.	2 (5.3)	1 (2.6)	9 (23.7)	14 (36.8)	12 (31.6)
7. Access to the patient's clinical records is necessary to deliver the sessions.	0 (0)	3 (7.9)	8 (21.1)	14 (36.8)	13 (34.2)
8. Ethical measures can be applied to keep the patient's information confidential.	0 (0)	0 (0)	3 (7.9)	5 (13.2)	30 (78.9)
9. The digital literacy of the patients is enough to provide synchronic teleconsultations.	2 (5.3)	5 (13.2)	16 (42.1)	12 (31.6)	3 (7.9)
10. The time for therapeutic planning is the same as for in-person sessions.	11 (28.9)	10 (26.3)	5 (13.2)	7 (18.4)	5 (13.2)
11. The average internet connection speed of the patients is enough to deliver synchronic sessions.	1 (2.6)	8 (21.1)	14 (36.8)	11 (28.9)	4 (10.5)
12. Synchronic sessions are effective for the achievement of therapy goals.	0 (0)	0 (0)	10 (26.3)	17 (44.7)	11 (28.9)
13. The average video and/or audio quality of the patients	0 (0)	4 (10.5)	13 (34.2)	18 (47.4)	3 (7.9)

is enough to deliver synchronic sessions.					
14. I had to invest in equipment or a better internet connection to be able to deliver sessions via telepractice.	7 (18.4)	3 (7.9)	1 (2.6)	12 (31.6)	15 (39.5)
15. It was possible to perform an initial assessment of the patients via telepractice to obtain an accurate diagnosis.	6 (15.8)	4 (10.5)	8 (21.1)	12 (31.6)	8 (21.1)
16. It was possible to assess and reassess patients through teleconsultation to determine the progress of therapy.	1 (2.6)	1 (2.6)	9 (23.7)	14 (36.8)	12 (34.2)
17. The COVID-19 socio-sanitary crisis affected the timely referral of patients I support (quick and efficient referral).	6 (15.8)	1 (2.6)	7 (18.4)	11 (28.9)	12 (34.2)
18. The COVID-19 socio-sanitary crisis affected my mental health.	2 (5.3)	4 (10.5)	7 (18.4)	11 (28.9)	14 (36.8)
19. The available scientific evidence on telepractice in speech-language therapy is applicable to the context in which I work.	2 (5.3)	6 (15.8)	12 (31.6)	12 (31.6)	6 (15.8)

Telepractice in the Private and Public Sectors

This analysis considered 34 of the 38 responses (4 people who worked in both sectors were excluded). According to the analysis performed using Fisher's exact tests, significant results were obtained only for two variables: supported people's space ($p=0.03$) and digital literacy ($p=0.008$). Figures 7 and 8 illustrate the respective contingency tables.

DISCUSSION

The main objective of this study was to characterize the telepractice support delivered by speech-language therapists in Chile to adults and older adults during the COVID-19 pandemic.

Based on the results, it is possible to identify advantages and facilitators related to access to support, which concurs with international research carried out before and after the pandemic (Dimer et al., 2020; A. Pinto et al., 2020; Swales et al., 2020). Despite the limitations of this study regarding the representation of rural areas, the possibility of offering therapy regardless of location is highlighted; this results in an increased number of sessions, due to a reduction in commuting times. Moreover, the participants' responses align with the results of studies on the child population, where it can be observed that the presence of a co-therapist enhances the interventions in this modality (Gallant et al., 2023). On the other hand, professionals with no access to a co-therapist experienced this absence as a significant barrier to telepractice, perceiving a lack of support for the patient. Although these results correspond to different age groups, they both underline the importance of having the support of caregivers and/or family members during speech-language therapy sessions.

The findings in this study are similar, regarding the work experience and training of speech-language therapists, to the evidence obtained in a study from Brazil (de Cerqueira Oliveira et al., 2020). In both cases, most of the surveyed professionals mentioned not having offered teletherapy before the pandemic and indicated that their undergraduate training on the matter was limited or non-existent, which is consistent with the findings of Mora-Pino et al. (2023), and with the absence of undergraduate training in this area before the pandemic. This contrasts with what was reported by a study in Australia, where approximately a third of the participants were already delivering telepractice at the time of the research (Swales et al., 2020). On the other hand, a significant change was observed in the use of telepractice by speech-language therapists in the United States when comparing the pre- and post-pandemic periods, increasing from 2-10% to 29-85% (ASHA Staff, 2020).

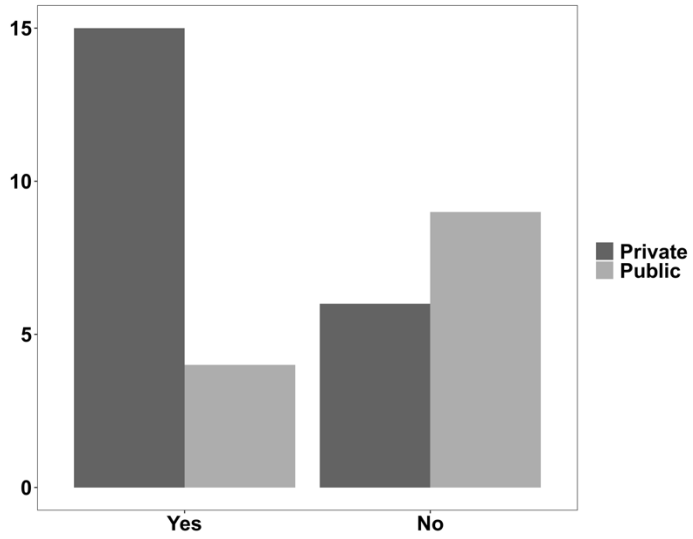

Figure 7. Answers to the question: Do the people you support have a well-lit, quiet, and private space to have the telepractice sessions?

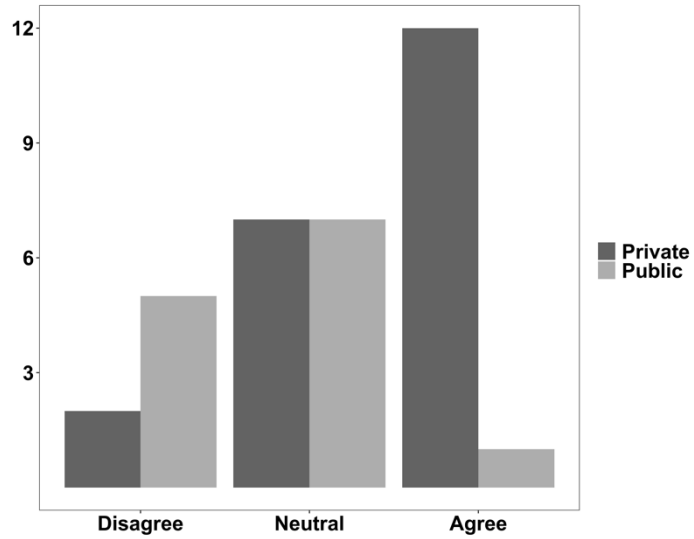

Figure 8. Answers to the question: Is the level of digital literacy of your patients enough to offer teletherapy synchronically?

The participants in this study mentioned they compensated for their lack of undergraduate training by attending courses, webinars, and diplomas. Accessing this additional information was considered an important facilitator for implementing remote therapy.

One aspect that stands out from the experience of the surveyed speech-language therapists is the adaptation of their services to ensure people had access to them. In contrast to experiences found in developed countries, professionals in Chile used low-cost and highly accessible software, mainly free video call platforms such as WhatsApp, Google Meet, and Zoom. Consistent with what is reported by Oliva Pezzani et al. (2022), most of the speech therapists stated they used their own devices and worked from home. In other words, they were responsible both for providing support and for managing the material conditions necessary for this, with little support from their employers, whether from the private or public sectors.

The duration and frequency of the sessions were similar to those reported for in-person therapy. However, the professionals perceived an increase in their workload due to the preparation involved in remote therapy. In a previous study, conducted in the USA, the speech-language therapists indicated that they required more time to create and find new tools for telepractice, as well as for adjusting to the devices and software before delivering teletherapy (Tucker, 2012). In this study, the extension of the working day is reported as a barrier affecting the workers' mental health. This is consistent with evidence showing the psychosocial consequences of the pandemic for health professionals (Urzúa et al., 2020) and the general population (Leiva et al., 2020). It should be noted that the period in which the professionals were consulted was the most impactful of the pandemic, both due to the latent health risks prior to vaccination and to mobility restrictions.

One barrier reported by the participants was the swallowing assessment. Although speech therapists in this study considered that telepractice support represents a disadvantage when it comes to performing procedures related to swallowing, there is evidence supporting the use of telepractice for dysphagia interventions (Reverberi et al., 2022). Previous studies have considered as a benefit the protection of people in vulnerable health situations such as post-chemotherapy patients, where it is preferable to avoid traveling outside the home (Collins et al., 2017).

One of the recommendations to clinically evaluate swallowing by telepractice is to have the support of an assistant next to the person with suspected dysphagia (Ward et al., 2022), who will provide safety and assistance in case of emergency, and will perform the assessment guided by the speech-language therapist. The assistant's role can be performed by different people depending on context, including family, caregivers, and nurses (Ward et al., 2022).

The conditions for telepractice were detected as barriers since the patients' access to technologies and devices is not always good enough. Moreover, the stability of the connection is affected by climatic and/or geographical factors. These factors were also reported by Swales et al. (2020), since the quality of the internet connection in rural areas is poorer than in urban areas. Access to

devices and the internet can also be limited by socioeconomic conditions, which is described in countries like Chile (Mora-Pino et al., 2023), Brazil (de Cerqueira Oliveira et al., 2020) and South Africa (Gallant et al., 2023; Watermeyer et al., 2022).

An additional barrier described by the participants is the physical space of patients and their therapists, particularly in conditions where access to a private, quiet, and well-lit space is not possible. This barrier appeared predominantly in the responses of professionals working in the public sector. In studies carried out in South Africa, it is mentioned that the physical setting can hinder the execution of telepractice, especially due to noise (Gallant et al., 2023).

The above could be due to the socioeconomic and housing conditions of people as well as the social conditions caused by the pandemic, which increased overcrowding and resulted in a combination of work, domestic, and care tasks (ECLAC, 2022). According to de Cerqueira Oliveira et al. (2020), therapists consider that income significantly influences adherence to this therapy modality. The aforementioned aspects also emerge as minimal conditions for care in other professions such as occupational therapy, both for the professionals and supported people (Oliva Pezzani et al., 2022). In order to incorporate telepractice into healthcare, it is fundamental to acknowledge the unequal access to material conditions, which is influenced by income (ECLAC, 2020). The physical conditions and lack of privacy for remote healthcare also impact the ethical framework, as they make it difficult to maintain confidentiality in the therapist-patient relationship (Kollia & Tsiamtsiouris, 2021).

Other research carried out in Latin America on telemedicine has identified very similar barriers to the ones addressed in this study. These can be categorized into various key aspects: Technological, including adequate infrastructure, standards, and certifications; psychosocial and anthropological, highlighting the gaps in digital literacy and training for professionals and students; human and social barriers, related to ensuring safety and confidentiality; and economic matters like service funding (Garcia Saiso et al., 2021).

Garcia Saiso et al. (2021) mention an additional barrier related to governance, which refers to the laws and regulations necessary for the implementation of telemedicine; however, this barrier was not detected by the participants in our study. In relation to this, the provision of telemedicine services in Chile was authorized through a modification to Law 20.584 at the beginning of the pandemic. Furthermore, the Ministry of Health temporarily authorized the use of codes from *Fondo Nacional de Salud* (FONASA) for telemedicine consultations (Mendoza-Alonzo et al., 2021).

The experience of the speech-language therapists participating in this research validates the evidence supporting the effectiveness of this modality and the benefits of combining telepractice with in-person therapy, both to decrease commuting costs (time and financial) and the physical and psychological burden of people and their caregivers. The results also underscore aspects associated with the implementation of telepractice in emergency contexts and factors like access to the technologies and internet connection required for this type of therapy, along with the time availability necessary for its adequate execution.

In light of the results and the available international evidence, telepractice can be a promising tool whose inclusion should be considered in public policies and in the minimum infrastructure conditions that are required for its correct implementation. In addition to the above, this modality poses an important challenge regarding the training of speech-language therapy professionals.

Limitations

This research has the following limitations:

a) Reduced sample size, which hindered a more robust comparison between professionals working in the private and public sectors, as some participants worked part-time in both settings.
b) The sample is centralized around the Metropolitana and Valparaíso regions and in urban areas, which decreases the representativity of other areas of the country where connectivity and access to professionals are lower.
c) Changes in sanitary conditions and restrictions to mobility made many professionals return to in-person settings. This limited the universe of participants.

CONCLUSIONS

This study represents the first approach to speech-language therapy telepractice with adults in Chile, focusing on its advantages and barriers with regard to supporting adults and older adults with communication and/or swallowing disorders. Telepractice emerged as a tool that speech-language therapists used during the COVID-19 pandemic and was crucial for the continuity of care. The participants of this research described encountering more barriers than facilitators when carrying out telepractice sessions. Despite this, the overall response of the surveyed professionals indicates that they consider this modality

to be a helpful tool when integrated with in-person support. Therefore, it is fundamental that this perspective be broadened by involving a greater number of speech-language therapists. This would allow for establishing solid guidelines for better practice in this modality, as well as gathering information from individuals with communication and/or swallowing disorders and their carers. Additionally, it is suggested to evaluate the applicability of telepractice in contexts unrelated to the pandemic, as this may contribute to generating good practice guidelines for professionals and incorporating this modality into speech-language therapy training at the undergraduate level.

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APPENDIX 1. Questions of the survey (open and closed).

Domain	Question	Type of Response
Sociodemographic Data	Name	● Open Response
	Region in which you work	● Open Response
	City in which you work	● Open Response
	Years since Graduation	● Open Response
	Workplace	● Multiple Choice Response o CESFAM o CCR o Hospital o Clinic o Private Sessions o Charity/NGO o University Health Center
	Contracted Hours	● Multiple Choice Response o Less than 11 hr o 11-21 hr o 22-32 hr o 33-43 hr o 44 hr o Not Applicable
	Hours per Week dedicated to Telepractice	● Open Response
	Current Work Modality	● Multiple Choice Response o Telepractice o In Person o Hybrid (Telepractice and In Person)
	Telemedicine/Telepractice Training	● Multiple Choice Response o Webinar o Course o Diploma o Postgraduate o None
	Did you offer telepractice before the pandemic?	● Multiple Choice Response o Yes o No
Information of Support Provided	Diagnoses of the People You Support	● Multiple Choice Response o Motor Speech Disorders o Aphasia o Cognitive-Communicative Disorders o Swallowing Disorders o Voice Disorders
	Health Insurance System of Your Patients.	o FONASA A o FONASA FREE CHOICE (B,C,D) o ISAPRE

	○ CAPREDENA
Do you use informed consent with your patients?	● Multiple Choice Response ○ Yes ○ No
In what physical space do you deliver your telepractice sessions?	● Multiple Choice Response ○ At home ○ At my workplace
Approximate duration of your telepractice sessions	● Multiple Choice Response ○ Less than 20 minutes ○ 30 minutes ○ 45 minutes ○ 1 hour
Which platform do you use for telepractice? Check all that apply.	● Multiple Choice Response ○ Telehealth specialized platform ○ Zoom ○ Google meet ○ Microsoft teams ○ Jitsi ○ WhatsApp Video call ○ Facetime
Tell us, What instruments do you use to assess your patients? Check all that apply.	● Multiple Choice Response ○ Adaptations of existing instruments ○ Qualitative assessment designed by yourself ○ Clinical observation ○ Other
If you adapted existing evaluation instruments, indicate which ones you used. If you did not have to adapt tests, check 'No'.	● Open Response
The therapy approach you use or used is based on (you can check more than one):	● Multiple Choice Response ○ Direct intervention with the patient ○ Indirect intervention with caregivers and/or family ○ Education and counseling to service users and families/carers
How frequently did you or do you support people through telepractice? Consider the average for the most frequent option.	● Multiple Choice Response ○ More than 3 times per week ○ 3 times per week ○ 2 times per week ○ 1 time per week ○ Every other week ○ 1 time per month
Through which devices did you deliver telepractice sessions? You may check more than one option.	● Multiple Choice Response ○ PC ○ Notebook/ MacBook ○ Tablet/ iPad ○ Smartphone

		○ Other
	The device you use for your sessions is:	● Multiple Choice Response ○ My own ○ Provided by my employer
	To what age group do your patients belong? You may check more than one option.	● Multiple Choice Response ○ 18-25 ○ 26-40 ○ 41-60 ○ 60-79 ○ Over 80
	Thinking of most of your telepractice sessions, How good and stable is the internet connection your patients have to access uninterrupted synchronic sessions through video calls?	● Multiple Choice Response ○ Good ○ Regular ○ Bad
	What device do your patients use to connect to teletherapy? Check all that apply.	● Multiple Choice Response ○ PC ○ Notebook/MacBook ○ Tablet/iPad ○ Smartphone ○ I don't know
	Thinking of most of your telepractice sessions, Do your patients have a well-lit, quiet, and private space for the delivery of telepractice sessions?	● Multiple Choice Response ○ Yes ○ No
Barriers and Facilitators	Based on your experience, indicate what facilitators you have identified from your professional perspective.	● Open Response
	Based on your experience, indicate what barriers you have identified from your professional perspective.	● Open Response
	Indicate how much the following factors impact telepractice care, from your perspective as a health professional: (Significantly, Considerably, Moderately, Slightly, Not at All, I Don't Know/Not Applicable)	● Multiple Choice Response ○ Level of knowledge of virtual platforms ○ Therapist's Access to Internet Connection ○ Quality of the Internet Connection ○ Therapist's Access to a Device (cellphone, computer) ○ Video and/or Audio Quality ○ Possibility to Access Clinical Records ○ Possibility of Data Protection and confidentiality ○ Adequate Space to Deliver Sessions ○ Availability of Assessment Instruments ○ Time Available to Create Material ○ Age of the Patient ○ Patient's Access to a Device (Cellphone, Computer) ○ Patient's Educational Level

	○ Presence of Family Members to Support the Session ○ Level of Severity of the Patient's Condition ○ Patient's Digital Literacy Level
The severity of the communication and/or swallowing disorder hinders the delivery of synchronic telepractice sessions.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
It is necessary to be trained in telemedicine to be able to implement it.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
Patients must have a private, quiet space for the delivery of teleconsultations.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
Telepractice can replace in-person care.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
It is necessary to have at least one person who acts as a co-therapist for therapy success.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
Access to the patient's clinical records is necessary to deliver the sessions.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or disagree ○ Disagree ○ Completely Disagree
Ethical measures can be applied to keep the patient's information confidential.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
The digital literacy of the patients is enough to provide synchronic teleconsultations.	● Multiple Choice Response ○ Completely Agree ○ Agree

	○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
The time for therapeutic planning is the same as for in-person sessions.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
The average internet connection speed of the patients is enough to deliver synchronic sessions.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
Synchronic sessions are effective for the achievement of therapy goals.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
The average video and/or audio quality of the patients is enough to deliver synchronic sessions.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
I had to invest in equipment or a better internet connection to be able to deliver sessions via telepractice.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
It was possible to perform an initial assessment of the patients via telepractice to obtain an accurate diagnosis.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
It was possible to assess and reassess patients through teleconsultation to determine the progress of therapy.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
The COVID-19 socio-sanitary crisis affected the timely referral of patients I support (quick and efficient referring	● Multiple Choice Response ○ Completely Agree ○ Agree

process).	○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
The COVID-19 socio-sanitary crisis affected my mental health.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree
The available scientific evidence on telepractice in speech-language therapy is applicable to the context in which I work.	● Multiple Choice Response ○ Completely Agree ○ Agree ○ Do not Agree or Disagree ○ Disagree ○ Completely Disagree