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Original Article

Telemedicine in Speech-Language Therapy for People with Aphasia: Barriers and Facilitators in the Chilean Context

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ABSTRACT

Beginning in 2020, online speech-language therapy saw significant growth due to the COVID-19 pandemic, requiring adaptations to ensure continuity of care. This study describes the experiences of speech-language therapists (SLTs) providing care to people with aphasia (PwA) through telemedicine in healthcare centers across Chile. It also explores potential barriers and facilitators. An online survey was conducted with 16 Chilean SLTs who practiced telemedicine between 2020 and 2022. The survey, piloted by experts, was analyzed using descriptive and frequency-based methods to identify challenges and enabling factors in implementing this modality. Most participants identified barriers such as unstable internet connections, limited digital literacy among PwA and their families, and insufficient institutional resources, which forced professionals to rely on their own devices and internet access. Facilitators included increased accessibility to therapy for people in remote areas or with limited mobility, reduced travel time and costs, and the ability to conduct sessions in a safe environment that fosters family participation, promotes therapy adherence, and enhances communication. The study concludes that telemedicine in speech-language therapy is a complex practice, characterized by unclear guidelines and driven primarily by the pandemic. While it highlights favorable aspects, significant barriers persist. Although this study provides an initial overview, the results underscore the need for further research to improve this practice.

Keywords:
Telemedicine; Telerehabilitation; Speech and Language Therapy; Aphasia; Language Barriers; Language Facilitators

Telemedicina Fonoaudiológica para Personas con Afasia: Descripción de Barreras y Facilitadores en la Práctica Chilena

RESUMEN

La telemedicina fonoaudiológica experimentó un auge debido a la pandemia de COVID-19, a partir del año 2020. Esto le exigió adaptarse a las nuevas condiciones para asegurar la continuidad de las intervenciones. El objetivo del presente estudio es describir la experiencia de fonoaudiólogos/as en la atención a Personas con Afasia (PcA), a través de telemedicina fonoaudiológica en centros de salud en Chile. Todo ello con el fin de establecer posibles barreras y facilitadores. Se encuestaron a 16 fonoaudiólogos/as chilenos/as que ejercieron telemedicina entre los años 2020 y 2022. La encuesta, pilotada por expertos, fue analizada descriptiva y frecuencialmente para identificar barreras y facilitadores en la implementación de esta modalidad. Los resultados muestran que la gran mayoría de los participantes identificaron barreras en la implementación de la telemedicina. Una de las barreras más frecuentes fue la inestabilidad de la conexión a internet (94%), la carencia de alfabetización digital en PcA y sus familias (87%) y la ausencia de insumos proporcionados por las instituciones, lo que obligó al 56% de los profesionales a utilizar dispositivos y conexiones propias. Se concluye que la telemedicina fonoaudiológica es una práctica compleja con directrices poco claras y una ejecución forzada por la pandemia. Este estudio muestra aspectos favorables y barreras significativas. Además, los resultados sugieren la necesidad de desarrollar más investigaciones para mejorar esta práctica.

Palabras clave:
Telemedicina; Telerehabilitación; Afasia; Intervención Fonoaudiológica; Barreras; Facilitadores

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INTRODUCTION

Telemedicine, as defined by the World Health Organization (WHO) in 2010, is considered a health innovation that utilizes technology to overcome geographical barriers and enhance access to healthcare (Batsis et al., 2020; Ryu, 2012; Shahouzaie & Gholamiyan Arefi, 2022). It can also complement in-person treatment, particularly for individuals with motor impairments, reduced mobility, or severe dependency. Because telemedicine eliminates the need for travel, it ensures greater accessibility (Dial et al., 2019).

The flexibility that telemedicine offers is beneficial for both patients and healthcare professionals. For instance, it enables more convenient scheduling, reduces travel time, and lowers associated costs. These advantages may result in increased adherence to therapy and improved therapeutic outcomes (Shahouzaie & Gholamiyan Arefi, 2022; Teti et al., 2023). Additionally, telemedicine optimizes resource use, allowing professionals to treat more patients while reducing the need for physical infrastructure. This, in turn, can help manage workload and enhance the efficiency of care delivery, while also boosting patient engagement and motivation (Batsis et al., 2020).

Contemporary telemedicine platforms often include interactive features that foster greater patient involvement in therapy, enabling the integration of multimedia tools and bespoke therapeutic plans (Shahouzaie & Gholamiyan Arefi, 2022; Teti et al., 2023).

The COVID-19 pandemic significantly accelerated the adoption of telemedicine in 2020. This expansion led to improved access to healthcare services, enhanced care quality, and increased organizational efficiency (Ovando, 2021). It also prompted changes in therapeutic and relational dynamics between healthcare professionals and patients (Downing, 2021).

Telemedicine has become a valuable tool for people with communication disorders, ensuring continuity in healthcare and rehabilitation services. It provides a virtual space that facilitates collaboration among therapists, family members, caregivers, and the multidisciplinary rehabilitation team (Toledo-Rodriguez et al., 2021). Previous research conducted in Australia and the United States indicates that telerehabilitation yields outcomes comparable to in-person care for patients with communication difficulties (Fifield et al., 2018).

The first documented uses of telemedicine for patients with communication disorders date back to 2013, when Hall et al. successfully applied this modality to people with aphasia (PwA) (Hall et al., 2013). Subsequent studies have shown that telerehabilitation significantly improves functional communication in PwA, particularly when using interactive platforms and adapted protocols (Cacciante et al., 2021). Moreover, remote speech-language therapy is both feasible and sustainable, effectively addressing technical, logistical, and data security challenges. Indeed, an exploratory pilot clinical trial found that word-naming abilities in PwA following a stroke improved more through telemedicine than with standard rehabilitation (Øra et al., 2018).

In addition to being effective and acceptable for PwA, telerehabilitation may also be well received by their families and therapists. Previous studies have shown increased family involvement during intervention, which has been previously identified as a key facilitating factor (Dunne et al., 2023).

Despite these benefits, there are notable technological and logistical barriers that hinder the widespread implementation of telemedicine (Gallant et al., 2023). Lack of access to electronic devices has been identified as a fundamental technological barrier (Weißenfeld et al., 2021). Furthermore, many patients—particularly those in rural areas—often do not have access to a reliable internet connection or appropriate devices, which undermines the quality and consistency of remote care (Batsis et al., 2020; Weißenfeld et al., 2021). From a logistical standpoint, challenges arise in navigating telemedicine platforms. People with aphasia, in particular, may struggle to use these platforms independently. Similarly, speech-language therapists may encounter difficulties with the technological requirements necessary to deliver remote care effectively (Weißenfeld et al., 2021).

Another important barrier pertains to ethical limitations inherent to remote practice, particularly patient confidentiality and data security. These factors may discourage both patients and clinicians from fully embracing this modality (Batsis et al., 2020). Additionally, some linguistic domains in speech therapy require direct intervention and observation, which can be challenging to replicate in virtual environments. This limitation may impact the effectiveness of telemedicine in the treatment of aphasia (Weißenfeld et al., 2021).

At the national level, one of the earliest innovations in telemedicine dates back to the 1990s, with a pilot project developed by Pontificia Universidad Católica de Chile and Hospital Sótero del Río. This initiative focused on comparing traditional diagnosis with tele-diagnosis, and it served as a precursor to the development of telemedicine programs and

services by the Ministry of Health (MINSAL) and other institutions. These programs have significantly evolved since then (MINSAL & Subsecretaría de Redes Asistenciales, 2018). By 2017, telehealth services were already being delivered in outpatient, inpatient, and emergency care settings (MINSAL & Subsecretaría de Redes Asistenciales, 2018). In March 2020, MINSAL, through the public health fund *Fondo Nacional de Salud* (FONASA), issued Exempt Resolution No. 204, authorizing the delivery of remote speech-language therapy (Resolución 204, 2020). Although limited, available evidence on the evaluation of telerehabilitation in Chile suggests that this practice enhances both accessibility and continuity of care (Olivares et al., 2020).

Despite the growing relevance of telemedicine, few studies systematically explore the specific experiences of telemedicine in speech-language therapy services for PwA in Chile. This gap is especially noticeable in the absence of specific guidelines to inform such practices. Internationally, studies such as Cacciante et al. (2021) have shown the effectiveness of telerehabilitation for aphasia, while research conducted in contexts comparable to Chile, such as South Africa (Gallant et al., 2023) and the United States (Dunne et al., 2023), has identified similar barriers and facilitators.

This study aims to address the aforementioned gap by describing the experiences of speech-language therapists with telemedicine in Chile. Specifically, it examines the barriers and facilitators emerging within the local context and compares these findings with the existing international literature.

The data obtained will make it possible to (1) characterize the services provided in terms of session frequency, number of patients, and materials and resources, among other variables; (2) describe the types of aphasia among individuals receiving telemedicine; (3) identify barriers and facilitators in the speech-language care of PwA; and (4) analyze the frequency and correlation between perceived barriers and facilitators as reported by the participating professionals.

Moreover, the information gathered will not only help determine whether the local experience aligns with the existing body of evidence but will also lay the groundwork for developing future guidelines and recommendations to inform telepractice in speech-language therapy within the national context.

METHODOLOGY AND PROCEDURES

A survey titled “Telemedicine in Speech-Language Therapy for People with Aphasia (PwA)” (in Spanish *Telemedicina Fonoaudiológica en Personas con Afasia (PcA)*) was developed, consisting of 29 items distributed across five domains: technical, infrastructure, competence, environment, and geography.

Evaluated Domains

1. Technical

This domain assessed the stability and availability of technological resources required to implement telemedicine. Items included questions about internet connection quality and the digital platforms used for remote sessions (e.g., Zoom, Google Meet).

2. Infrastructure

This section explored the availability of devices and technological resources within healthcare services. It also examined how participants managed these resources, including the use of personal devices and the strategies employed to address the lack of necessary equipment in the workplace.

3. Competence

This domain measured both patients’ and professionals’ digital literacy skills, as well as their familiarity with the technological tools used during remote sessions.

4. Environment

This domain analyzed the degree of family involvement in telemedicine sessions, recognizing their role as a facilitating factor in the therapeutic process.

5. Geography

This domain addressed barriers and facilitators associated with the geographical location of patients and services, including accessibility in remote areas and the possibility of treating patients outside the professional’s physical location.

Procedure

Three experts validated the survey, conducting an initial pilot test and suggesting revisions to improve the clarity and relevance of the format and content. The Lawshe’s content validity index (CVI) was 0.78, indicating moderate agreement regarding the appropriateness of the items (Vargas Salgado et al., 2016).

The final instrument was distributed digitally via a Google Forms questionnaire to ensure both accessibility and participant confidentiality. Participants provided informed consent at the beginning of the questionnaire by agreeing with an explicit statement outlining the study's objectives, potential risks and benefits, and data confidentiality. It should be noted that the collected data contain no personal identifiers, as the study was conducted under strict anonymity.

Table 1 presents the survey items and their corresponding domains.

Table 1. Validated items, analyzed dimensions, and coherence index.

Item	Dimension	Coherence Index	Comment
Connectivity Assessment	Technical	0.78	It assesses the stability of the Internet connection.
Use of Own Devices	Infrastructure	0.80	It identifies available resources for telemedicine.
Digital Literacy	Competence	0.85	It measures the patients' ability to interact with technology.
Family Support	Environment	0.75	It determines the degree of family support available.
Accessibility	Geography	0.72	It considers location or mobility barriers

Created by the author based on the characteristics of the people with aphasia participating in the study.

Participants

This study included speech-language therapists from both the public and private sectors in Chile, all of whom had experience delivering telemedicine to PwA. Recruitment was conducted through social media posts and professional email networks. Interested individuals received an invitation letter via email, followed by a Google Forms link to the survey, which included informed consent and detailed information about the study.

Participants were required to meet the following inclusion criteria: (1) be certified and licensed speech-language therapists (SLTs) in Chile (registered with the Chilean Superintendence of Health), and (2) have provided, or be currently providing, telemedicine services to at least two PwA within the past year. Conversely, those without a professional SLT degree registered with the Chilean Superintendence of Health, those who had not provided telemedicine services to PwA, and professionals who had only provided telemedicine services to PwA outside the Chilean territory, were excluded.

Sample Characteristics

The final sample included 16 Chilean speech-language therapists. Table 2 presents the demographic characteristics of the participants. As shown, 81.25% of respondents identified as female and 18.75% as male. The majority of participants (87.5%) were between 25 and 45 years old. Regarding geographic distribution, 50% of the respondents practiced in the Metropolitana Region, 18.75% in the Valparaíso Region, another 18.75% in the Biobío Region, and 12.5% in other regions, specifically Los Lagos and O'Higgins.

Table 2 displays the demographic characteristics of the participants.

Table 2. Demographic characteristics of the participants according to different variables (N = 16).

Variable	Category	Frequency	Percentage (%)
Gender	Woman	13	81.25
	Man	3	18.75
Age	25-35 years	7	43.75
	35-45 years	7	43.75
	44-54 years	2	12.5
Region of Employment	Metropolitana	8	50
	Bío-Bío	3	18.75
	Valparaíso	3	18.75
	Los Lagos	1	6.25
	O'Higgins	1	6.25

Statistical Analysis

The survey responses were downloaded and organized using Microsoft Excel. A descriptive and frequency-based statistical analysis was subsequently conducted using SPSS version 29.0.2.0. The data were analyzed through descriptive statistics, frequency distributions, and correlation analyses.

RESULTS

Data on the Experience of Speech-Language Therapists in Implementing Telemedicine for PwA

Regarding the implementation of speech-language telemedicine services, 50% of participants reported initiating telepractice for PwA in 2020. An additional 37.5% began providing such services between 2021 and 2022.

Table 3. Occupational Characteristics of Participants According to Different Variables.

Variable	Category	Frequency	Percentage (%)
Years of professional experience working with PwA	Under 5 years	4	25
	5-10 years	5	31.25
	10-15 years	6	37.5
	Over 15 years	1	6.25
Type of work schedule	22 hours per week or less	4	25
	More than 22 and less than 44 hours per week	4	25
	Full Time	8	50
Service where they are employed	Public Service	8	50
	Private Service	6	37.5
	University Rehabilitation Center	1	6.25
	Occupational Health	2	6.25
Level of care in which they work	Primary (CESFAM, CES, CECOSF)	4	25
	Secondary (Referral hospitals, CRS, CDT)	2	12.5
	Tertiary (High-complexity hospitals)	6	37.5
	University Telerehabilitation Program	1	6.25
	Outpatient service in a private center	1	6.25
	Independent	1	6.25
	University center	1	6.25
Length of time providing telepractice	Under 2 years	5	31.25
	Over 2 years	1	6.25
	Since 2020	8	50
	During the 2020-2021 period	2	12.5

Regarding the type of healthcare service in which participants are employed, 50% reported working in the public sector, while 37.5% were employed in the private sector. Additionally, 12.5% reported working in university-affiliated centers or health insurance providers. In terms of the level of healthcare, most participants indicated working at the tertiary care level, primarily in high-complexity hospitals.

Although most professionals are based in the Metropolitana Region, the PwA receiving telemedicine services are geographically distributed across the country, including remote areas such as Antofagasta and Magallanes. Figure 1 illustrates the geographic distribution of both the participating SLTs and the PwA, organized by region.

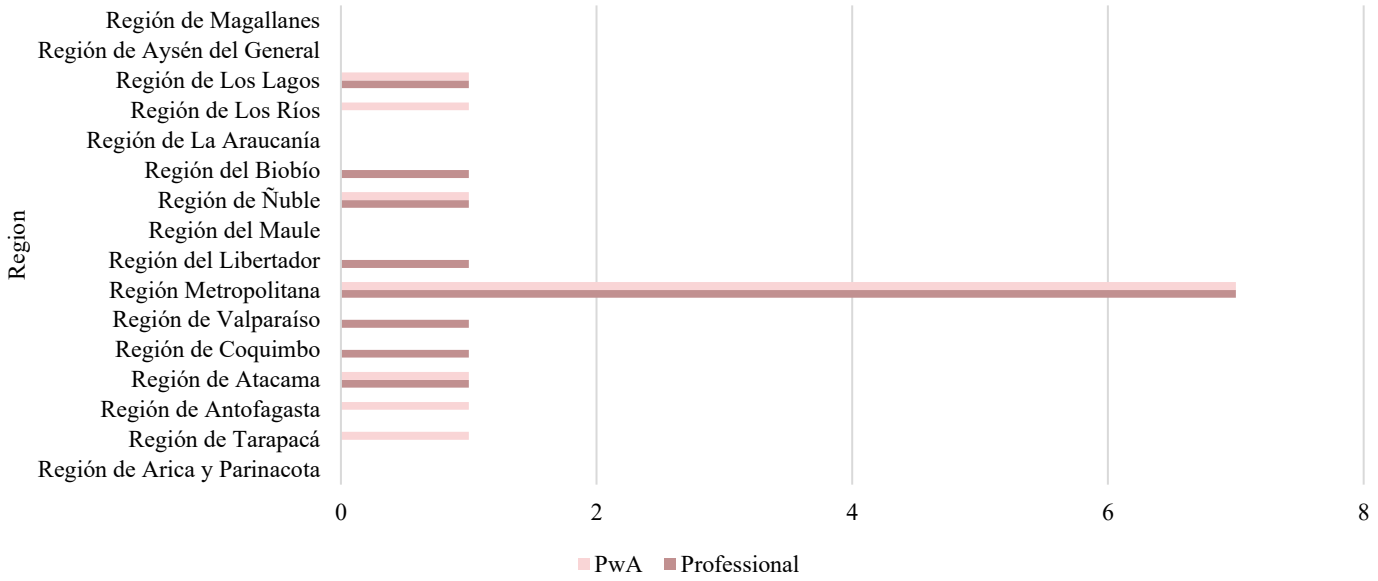

Figure 1. Geographical distribution of professionals and PwA in Chile, by region.

Table 4 presents the percentage distribution of variables associated with the provision of telemedicine for PwA, based on participants' professional experiences.

Regarding the supplies required for remote care, participants reported using various devices such as tablets, mobile phones, and computers. However, the two essential resources were a computer and a stable internet connection. Notably, more than half of the respondents (56.25%) indicated that their healthcare center provided the necessary equipment for delivering speech-language therapy remotely. Nonetheless, the same proportion (56.25%) reported having to use their personal devices to conduct online sessions.

When asked about the frequency and duration of remote sessions, 56.25% of participants reported conducting interventions two to three times per week with PwA, while 31.3% provided such care only once per week. The duration of the sessions varied among participants: 50% reported an average session length of 30 to 45 minutes, while 37.5% indicated durations ranging from 46 minutes to one hour. In terms of caseload, 56.25% of respondents reported treating between two and five PwA via telemedicine per week, while 31.25% treated more than five. Additionally, 18.75% did not have individual therapy sessions assigned and instead conducted remote group communication workshops or training sessions for other healthcare professionals. Concerning formal language assessments, 68.75% of participants indicated requiring two to three sessions to complete a comprehensive evaluation. Participants also noted that speech-language teletherapy tends to be more successful with people who have a higher level of auditory comprehension or who are at least able to follow simple instructions.

Table 4. Variables Related to Telepractice for People with Aphasia.

Variable	Percentage	Frequency (n)
¿How many PwA do you support remotely each week?		
2 to 5 people per week	56.25	9
More than 5 people per week	31.25	5
None currently, but did so in the past	12.5	2
¿Did the service or your workspace have the necessary resources (devices, Internet connection, software) to provide telemedicine?		
Yes	56.25	9
No	43.75	7
Total number of remote sessions (including assessment and intervention) per person		
Between 10 and 20 sessions	43.75	7
Between 21 and 30 sessions	31.25	5
More than 30 sessions	25	4
Number of remote sessions dedicated to assessment		
1 session	31.25	5
2-3 sessions	68.75	11
¿How frequently (weekly average) do you provide remote intervention for PwA?		
Once weekly per person	31.25	5
2 to 3 times weekly per person	56.25	9
More than 3 times weekly per person	6.25	1
Between 1 and 3 times weekly	6.25	1
Time allocated to remote intervention		
Less than 30 minutes	12.5	2
Between 30 and 45 minutes	50	8
Between 46 minutes and one hour	37.5	6

Regarding diagnoses, participants reported that the majority of PwA treated through telemedicine presented with anomic aphasia, followed by Broca's aphasia and conduction aphasia. These types of aphasia are theoretically associated with relatively preserved comprehension skills, which may facilitate remote therapeutic interaction. Figure 2 displays the frequency distribution of aphasia diagnoses among PwA treated via telemedicine, as reported by the participants.

These findings offer a characterization of the participants' experience in implementing speech-language therapy via telemedicine for PwA, highlighting variability not only in the number of sessions (i.e., time allocated to virtual care), but also in the type of services delivered (e.g., individual vs. group sessions).

Barriers and Facilitators in Telemedicine for PwA

When asked whether they had encountered any barriers while delivering remote speech-language therapy sessions to PwA, 87.5% of participants responded affirmatively, 6.3% responded negatively, and one participant expressed uncertainty.

Those who answered "yes" or were unsure were asked to specify the main barriers they had faced. The most commonly reported challenges included an unstable internet connection, power outages, background noise, and short battery life of devices. They also mentioned low levels of digital literacy among patients, difficulty operating technological devices, lack of access to a computer or mobile device, need for third-party assistance to connect to sessions, and environmental distractions (e.g., loud noises, pets, household members). Notably, 100% of participants reported that the PwA they treat or have treated via telemedicine have expressed difficulties both in accessing and maintaining this modality of care.

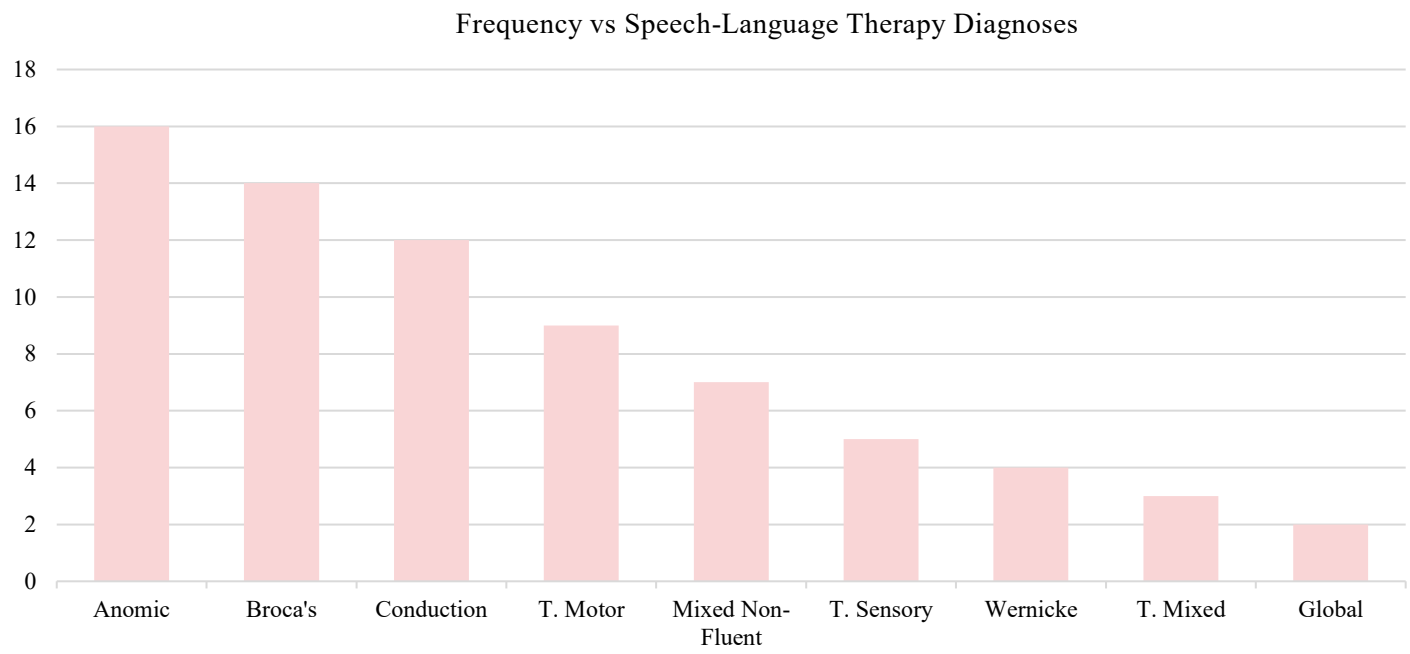

Figure 2. Speech-language therapy diagnoses of PwA supported through telemedicine.

Table 5. Frequency Distribution of Barriers and Facilitators

Variable	Frequency	Percentage	Cumulative Percentage	Type
Digital Literacy	7	8.2	24.7	Barrier
Power Outages	3	3.5	28.2	Barrier
Internet Connectivity Issues	14	16.5	44.7	Barrier
Resource Availability	1	1.2	45.9	Barrier
Environmental Factors (light, background noise)	7	8.2	64.7	Barrier
Difficulties Using/Handling Devices	13	15.3	97.6	Barrier
Third-Party Assistance Is Required to Facilitate/Moderate the Session	1	1.2	98.8	Barrier
Accessibility to Therapy for Individuals with Reduced Mobility or Those Living in Remote Areas Away from Healthcare Centers	14	16.5	16.5	Facilitator
Safe, Familiar, and Routine Environment	9	10.6	56.5	Facilitator
Greater Participation from Family and Close Network	9	10.6	75.3	Facilitator
Improved Adherence to Therapy	2	2.4	77.6	Facilitator
Reduced Professional Workload Compared to In-Person Care	1	1.2	78.8	Facilitator
Opportunity for Digital Literacy	3	3.5	82.4	Facilitator
Time	1	1.2	100.0	Facilitator

When asked about the essential resources required to deliver remote care, 93.8% of participants indicated that having access to at least one computer is fundamental. Additionally, 87.5% emphasized the need for a reliable internet connection and access to licensed videoconferencing platforms such as Zoom or Google Meet. Some participants also reported that, as this was a relatively new modality, certain PwA and/or their family members expressed uncertainty or skepticism regarding the effectiveness of telemedicine compared to in-person interventions.

Despite the barriers reported, 100% of participants identified facilitators that supported the integration of telepractice into their routine clinical work. The primary facilitators mentioned included enhanced family involvement, the familiarity and safety of the

environment for PwA, increased accessibility for patients in rural or remote areas, and a reduction in travel time and associated economic burden by eliminating the need for public or private transportation.

Participants also noted that telepractice created opportunities to train communication partners or co-therapists within the patient's everyday environment. Furthermore, the use of telemedicine encouraged some patients and families with limited technological experience to become familiar with mobile devices, which could then be incorporated as therapeutic tools. Finally, participants agreed that telemedicine improved access to rehabilitation and promoted greater adherence among PwA and their families.

Table 5 displays the frequency distribution of both barriers and facilitators reported by participants.

As previously discussed, participants identified internet connectivity issues and difficulties in operating electronic devices as the most recurrent barriers to implementing telemedicine for speech-language therapy. These were reported 14 times (16.5%) and 13 times (15.3%), respectively. Conversely, the most frequently cited facilitators included improved access to therapy for people with mobility impairments or those living far from health centers (14 mentions; 16.5%), provision of therapy in a familiar and safe environment (9 mentions; 10.6%), and increased involvement of family and close network in the therapeutic process (9 mentions; 10.6%).

A frequency analysis comparing barriers and facilitators revealed that participants perceived more barriers (55.3%) than facilitators (44.7%) in the implementation of speech-language telemedicine, as summarized in Table 6.

Table 6. Frequency Relationship Between Barriers and Facilitators.

Variable	Frequency	Percentage	Cumulative Percentage
Barrier	47	55.3	55.3
Facilitator	38	44.7	100.0
Total	85	100.0	

After conducting a correlation analysis between barriers and facilitators, a correlation coefficient of r=0.236 was found; this value indicates a weak positive correlation between the number of barriers and facilitators. In other words, as the number of barriers increases, the number of facilitators may also increase. Nevertheless, when analyzing the statistical significance of these outcomes, a p-value of 0.378 was found. This is greater than the standard p=0.05 threshold, indicating that the observed correlation is not statistically significant, as shown in Table 7.

Table 7. Correlation between barriers and facilitators.

		Barriers	Facilitators
Barriers	Pearson Correlation	1	.236
	Sig. (2-tailed)		.378
	N	16	16
Facilitators	Pearson Correlation	.236	1
	Sig. (2-tailed)	.378	
	N	16	16

DISCUSSION

The results of this study confirm that speech-language therapy provided via telemedicine for people with aphasia (PwA) faces significant barriers as well as valuable facilitators. The main barriers identified include unstable internet connectivity, difficulties in operating technological devices, and limited digital literacy among both PwA and their families. Gallant et al. (2023) documented that therapists in South Africa faced technological barriers comparable to those found in the present study. Many of these technological barriers lie beyond the direct control of professionals, as they depend on factors such as internet quality and the availability of appropriate equipment on the part of both patients and therapists. This scenario aligns with Steele et al. (2014) and Capra & Mattioli (2020), who noted that the lack of familiarity with technology among older adults hampers the implementation of telemedicine without prior adaptation and training. Previous studies have documented similar obstacles: Fassas et al. (2021) identified poor connectivity as a significant barrier to telepractice; Barbosa et al. (2020) highlighted challenges in using electronic devices; and Scott Kruse et al. (2018) emphasized the importance of digital literacy for the successful adoption of telemedicine. Our findings reflect the same challenges, as respondents repeatedly mentioned internet failures, device-related difficulties, and lack of digital skills as the most frequent impediments to remote care for PwA.

In contrast, telemedicine offers advantages that act as facilitators for speech-language therapy. A key benefit is increased accessibility to therapy for patients who would otherwise face difficulties traveling, whether due to mobility limitations or living in remote areas. Our participants highlighted this advantage, which aligns with international reports indicating that telehealth

improves access to healthcare services in remote populations (Smith & Badowski, 2021). Beyond accessibility, the comfort of the home environment and active involvement of the family as co-therapists emerge as facilitators that enhance treatment adherence and boost communicative outcomes in PwA (Hall et al., 2013; Pitt et al., 2019). Even group telepractice has been shown to foster patient engagement (Dunne et al., 2023), just as the ease of access and reduction in travel times inherent to this modality are associated with lower therapy dropout rates (Dixon et al., 2019). Consistent with these findings, the facilitators identified in our study suggest that telemedicine not only expands the scope of care but also contributes to rehabilitation continuity by promoting a safe and familiar environment conducive to therapeutic success (Dial et al., 2019).

Another relevant finding is that remote speech-language therapy tends to be more effective with PwA who retain better auditory comprehension. In our study, most PwA presented with diagnoses such as anomic aphasia, Broca's aphasia, or conduction aphasia—disorders characterized by relatively preserved comprehension—which may partly explain the greater success of remote interventions. Nonetheless, results indicate that this modality was successfully applied to patients with diverse linguistic profiles, suggesting that telepractice can be adapted to different types of aphasia if appropriate adjustments are made. To enhance the efficacy of telemedicine in cases with greater comprehension deficits, clinicians should consider complementary technological strategies. For example, the use of interactive dialogues with virtual therapists has been shown to promote functional communication in PwA (Kalinyak-Fliszar et al., 2015). Similarly, innovative techniques such as tele-priming for language production have shown promising results that could help overcome some limitations observed in PwA during teletherapy (Lee et al., 2023). Implementing such tools could improve participation and communicative achievements in PwA with greater comprehension difficulties, thereby broadening the scope of telerehabilitation.

Beyond barriers and facilitators, this study provides novel quantitative data on how speech-language teletherapy for PwA is being conducted in Chile. Most of the surveyed SLTs have between 5 and 15 years of professional experience, with a balanced distribution between those working in the public and private sectors, and similar proportions of full-time and part-time work schedules. Furthermore, telepractice with PwA is being implemented at different levels of healthcare, most commonly at tertiary (specialized) and primary care levels. Regarding workload, around half of the professionals support approximately 2 to 5 PwA per week via remote sessions. However, most reported that their workplace did not provide all the technology needed, which forces them to use their own devices or internet connections to carry out therapy. This lack of institutional support represents an added difficulty and a constant threat to the continuity of this type of care.

On the other hand, participants reported typically conducting between 10 and 20 teletherapy sessions per PwA, with an average duration of 30 to 45 minutes and a frequency of 2 to 5 sessions per week. The literature has identified these ranges as effective for achieving significant communication improvements in people with aphasia through telerehabilitation (Cherney & Vuuren, 2012; Hall et al., 2013). Previous studies report notable progress with programs consisting of 10 to 36 sessions lasting 45 to 60 minutes each (Cherney & Vuuren, 2012), and positive outcomes have also been observed with a frequency of 1 to 3 sessions per week over 10 to 12 weeks (Hall et al., 2013). In line with these findings, most professionals in the sample have been using telemedicine for more than 2 years, suggesting that the use of this modality has progressively solidified during and after the COVID-19 pandemic.

Despite the ongoing addition of this practice to intervention, significant challenges persist in terms of resources, as many therapists still face a lack of equipment. This is either because they do not own a device or because institutions do not provide the necessary supplies. This is in addition to the connectivity difficulties noted above.

Although there are professional guidelines for working with PwA via telemedicine at the national level (Olivares et al., 2020), there are no official records of how many SLTs apply this modality, nor how many patients with aphasia are being supported remotely. However, there is a Chilean study (Fonoaudiología UC, 2021; Mohammad-Jiménez et al., 2024) that surveyed 38 speech-language therapists during the pandemic, finding that most patients treated via telepractice were older adults (60–79 years) covered by the public health system (FONASA). The main barriers identified were low digital literacy among service users, limited access to devices, and communication difficulties in their home environment. At the same time, facilitators such as continuous access to therapy, reduced travel times, and the possibility of including co-therapists in sessions were highlighted. Notably, these are the same factors that emerged in the present research; consequently, the findings of both studies are similar, suggesting that this modality could be widespread throughout much of the country.

While the results are consistent with international evidence, readers should interpret these findings with caution due to the limited sample size. One consequence of having a small number of participants is the reduced statistical power to confirm specific observed trends. For example, the data revealed a positive trend indicating that a higher number of reported barriers was associated with a higher number of identified facilitators. However, this correlation was not statistically significant (p = .378), likely due to the small sample size. This limitation implies that, while the findings contribute relevant knowledge about telepractice in people with aphasia, they cannot be generalized to the broader speech-language therapy community. However, this study offers an initial exploratory insight into the implementation of telemedicine for PwA in Chile, providing valuable findings regarding the experience of SLTs during the COVID-19 pandemic and in subsequent years. In this regard, and in the absence of data, this research constitutes a pioneering effort to document telemedicine practices in speech-language therapy for PwA in Chile. It offers quantitative information on aspects such as the number of patients supported per week, resources used, and the demographic and geographic characteristics of both the professionals and the PwA with whom they work.

Future research in this area should include larger samples to corroborate and expand upon these findings, ultimately supporting the development of clear guidelines to optimize this mode of care.

CONCLUSIONS

This study explored the experiences of 16 Chilean speech-language therapists (SLTs) in providing telemedicine for people with aphasia (PwA), as well as key barriers and facilitators to this practice. Some of the main barriers were the limited digital literacy of PwA and their families, unstable internet connection, and the lack of adequate technological resources. In contrast, notable facilitators included the active involvement of family members in supporting therapy, as well as increased accessibility for people with reduced mobility or those living in remote areas. The findings also suggest that telemedicine tends to be more effective for PwA with relatively preserved auditory comprehension (e.g., those with anomic, conduction, or Broca's aphasia). However, it was successfully implemented with patients exhibiting a range of linguistic profiles. These results highlight the need to strengthen access to technological resources and digital literacy for both PwA and their caregivers, as well as the need to develop public policies and nationally grounded guidelines to regulate and optimize this modality of care.

It is recommended that future research include larger samples to more accurately evaluate the effectiveness and feasibility of telemedicine in speech-language therapy in Chile, thus contributing to its consolidation within the national healthcare system.

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REFERENCES

Barbosa, M. T., Sousa, C. S., Morais-Almeida, M., Simões, M. J., & Mendes, P. (2020). Telemedicine in COPD: An Overview by Topics. *COPD: Journal of Chronic Obstructive Pulmonary Disease*, *17*(5), 601–617. https://doi.org/10.1080/15412555.2020.1815182

Batsis, J. A., McClure, A. C., Weintraub, A. B., Sette, D., Rotenberg, S., Stevens, C. J., Gilbert-Diamond, D., Kotz, D. F., Bartels, S. J., Cook, S. B., & Rothstein, R. I. (2020). Barriers and facilitators in implementing a pilot, pragmatic, telemedicine-delivered healthy lifestyle program for obesity management in a rural, academic obesity clinic. *Implementation Science Communications*, *1*(1), 83. https://doi.org/10.1186/s43058-020-00075-9

Cacciante, L., Kiper, P., Garzon, M., Baldan, F., Federico, S., Turolla, A., & Agostini, M. (2021). Telerehabilitation for people with aphasia: A systematic review and meta-analysis. *Journal of Communication Disorders*, *92*, 106111. https://doi.org/10.1016/j.jcomdis.2021.106111

Capra, R., & Mattioli, F. (2020). Tele-health in neurology: An indispensable tool in the management of the SARS-CoV-2 epidemic. *Journal of Neurology*, *267*(7), 1885–1886. https://doi.org/10.1007/s00415-020-09898-x

Cherney, L. R., & Vuuren, S. van. (2012). Telerehabilitation, Virtual Therapists, and Acquired Neurologic Speech and Language Disorders. *Seminars in Speech and Language*, *33*, 243–258. https://doi.org/10.1055/s-0032-1320044

Dial, H. R., Hinshelwood, H. A., Grasso, S. M., Hubbard, H. I., Gorno-Tempini, M.-L., & Henry, M. L. (2019). Investigating the utility of teletherapy in individuals with primary progressive aphasia. *Clinical Interventions in Aging*, *14*, 453–471. https://doi.org/10.2147/CIA.S178878

Dixon, K., Kleinig, T., Jannes, J., & Tan, A. (2019). *Improving outcomes for rural stroke patients: A South Australian success story*. 1–6. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ruralhealth.org.au/15nrhc/sites/default/files/E2-1_Dixon.pdf

Downing, L. (2021). *Bodies on the line: How telepsychology brought about new relationalities between therapists and their clients during the COVID-19 pandemic*. https://doi.org/10.1332/147867321X16291280809438

Dunne, M., Hoover, E., & DeDe, G. (2023). Efficacy of Aphasia Group Conversation Treatment via Telepractice on Language and Patient-Reported Outcome Measures. *American Journal of Speech-Language Pathology*, *32*(5S), 2565–2579. https://doi.org/10.1044/2023_AJSLP-22-00306

Fassas, S., Cummings, E., Sykes, K. J., Bur, A. M., Shnayder, Y., & Kakarala, K. (2021). Telemedicine for head and neck cancer surveillance in the COVID-19 era: Promise and pitfalls. *Head & Neck*, *43*(6), 1872–1880. https://doi.org/10.1002/hed.26659

Fifield, E., Bailey, M., & Burningham, L. (2018). The Efficacy of Tele-practice on Expressive Language Outcomes for Adults with Aphasia. *Communication Sciences and Disorders: Systematic Review Publications*. https://scholarworks.uvm.edu/csdms/1

Fonoaudiología UC. (2021, octubre 28). Proyecto FONIS de Fonoaudiología UC investiga afasia en pacientes con ACV [Blog]. *Noticias*. https://fonoaudiologia.uc.cl/noticias/proyecto-fonis-de-fonoaudiologia-uc-investiga-afasia-en-pacientes-con-acv/

Gallant, A., Watermeyer, J., & Sawasawa, C. (2023). Experiences of South African speech–language therapists providing telepractice during the COVID-19 pandemic: A qualitative survey. *International Journal of Language & Communication Disorders*, *58*(5), 1468–1480. https://doi.org/10.1111/1460-6984.12872

Hall, N., Boisvert, M., & Steele, R. (2013). Telepractice in the Assessment and Treatment of Individuals with Aphasia: A Systematic Review. *International Journal of Telerehabilitation*. https://doi.org/10.5195/ijt.2013.6119

Kalinyak-Fliszar, M., Martin, N., Keshner, E., Rudnicky, A., Shi, J., & Teodoro, G. (2015). Using Virtual Technology to Promote Functional Communication in Aphasia: Preliminary Evidence From Interactive Dialogues With Human and Virtual Clinicians. *American Journal of Speech-Language Pathology*, *24*(4), S974–S989. https://doi.org/10.1044/2015_AJSLP-14-0160

Lee, J., Keen, A. D., Farr, E., & Christ, S. (2023). TelePriming sentence production in aphasia. *Frontiers in Human Neuroscience*, *17*. https://doi.org/10.3389/fnhum.2023.1274620

Ministerio de Salud [MINSAL], & Subsecretaría de Redes Asistenciales. (2018). *Programa Nacional de Telesalud*. Ministerio de Salud. https://www.minsal.cl/wp-content/uploads/2018/03/Programa-Nacional-de-Telesalud.pdf

Mohammad-Jiménez, J., Matus-Rosas, P., & Quezada, C. (2024). Experiencia de fonoaudiólogos sobre la atención por telepráctica a personas adultas y mayores durante la pandemia por COVID-19 en Chile. *Revista Chilena de Fonoaudiología*, *23*, 1–21. https://doi.org/10.5354/0719-4692.2024.70234

Olivares, C., Cubillos, S., Ambiado, M., Urrutia, G., & García, P. (2020). *Recomendaciones para la atención fonoaudiológica de personas con afasia en contexto pandemia COVID-19 en Chile*. https://drive.google.com/file/u/1/d/1rasGY4_bkt4SJjsji6jeek3ujGVGrbge/view?usp=embed_facebook

Øra, H. P., Kirmess, M., Brady, M. C., Winsnes, I. E., Hansen, S. M., & Becker, F. (2018). Telerehabilitation for aphasia – protocol of a pragmatic, exploratory, pilot randomized controlled trial. *Trials*, *19*(1), 208. https://doi.org/10.1186/s13063-018-2588-5

Ovando, F. S. (2021). Telemedicina y Pandemia COVID 19. *Anales de la Facultad de Ciencias Médicas (Asunción)*, *54*(2), 13–16. https://doi.org/10.18004/anales/2021.054.02.13

Pitt, R., Theodoros, D., Hill, A. J., & Russell, T. (2019). The impact of the telerehabilitation group aphasia intervention and networking programme on communication, participation, and quality of life in people with aphasia. *International Journal of Speech-Language Pathology*, *21*(5), 513–523. https://doi.org/10.1080/17549507.2018.1488990

Resolución 204. (2020). https://www.bcn.cl/leychile

Ryu, S. (2012). Telemedicine: Opportunities and Developments in Member States: Report on the Second Global Survey on eHealth 2009 (Global Observatory for eHealth Series, Volume 2). *Healthcare Informatics Research*, *18*(2), 153–155. https://doi.org/10.4258/hir.2012.18.2.153

Scott Kruse, C., Karem, P., Shifflett, K., Vegi, L., Ravi, K., & Brooks, M. (2018). Evaluating barriers to adopting telemedicine worldwide: A systematic review. *Journal of Telemedicine and Telecare*, *24*(1), 4–12. https://doi.org/10.1177/1357633X16674087

Shahouzaie, N., & Gholamiyan Arefi, M. (2022). Telehealth in speech and language therapy during the COVID-19 pandemic: A systematic review. *Disability and Rehabilitation: Assistive Technology*, *19*(3), 761–768. https://doi.org/10.1080/17483107.2022.2122605

Smith, E., & Badowski, M. E. (2021). Telemedicine for HIV Care: Current Status and Future Prospects. *HIV/AIDS - Research and Palliative Care*, *13*, 651–656. https://doi.org/10.2147/HIV.S277893

Steele, R. D., Baird, A., McCall, D., & Haynes, L. (2014). Combining Teletherapy and Online Language Exercises in the Treatment of Chronic Aphasia: An Outcome Study. *International Journal of Telerehabilitation*, 3–20. https://doi.org/10.5195/ijt.2014.6157

Teti, S., Murray, L. L., Orange, J. B., Page, A. D., & Kankam, K. S. (2023). Telehealth Assessments and Interventions for Individuals With Poststroke Aphasia: A Scoping Review. *American Journal of Speech-Language Pathology*, *32*(3), 1360–1375. https://doi.org/10.1044/2023_AJSLP-22-00324

Toledo-Rodriguez, L., Martinez, M., & Henri, A. (2021). Telerehabilitación en personas con afasia. En L. Toledo-Rodríguez & R. Tobar-Fredes (Eds.), *Manejo fonoaudiológico de la persona con afasia* (pp. 109–111). Facultad de Medicina, Universidad de Chile. https://doi.org/10.34720/sk5c-p194

Vargas Salgado, M., Máynez-Guaderrama, A. I., Cavazos Arroyo, J., & Cervantes Benavides, L. E. (2016). *Validez De Contenido De Un Instrumento De Medicion Para Medir El Liderazgo Transformacional (Content Validity of a Measuring Instrument for Transformational Leadership)* (SSRN Scholarly Paper No. 2659369). Social Science Research Network. https://papers.ssrn.com/abstract=2659369

Weißenfeld, M. M., Goetz, K., & Steinhäuser, J. (2021). Facilitators and barriers for the implementation of telemedicine from a local government point of view—A cross-sectional survey in Germany. *BMC Health Services Research*, *21*(1), 919. https://doi.org/10.1186/s12913-021-06929-9