TELEPRACTICE

A Clinical Guide for Speech-Language Pathologists

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Preface

March 2020 changed many lives with the pandemic in full swing and the shutdown of the economy to mitigate the spread of the virus. SLPs' jobs were disrupted no matter the setting. Many moved very quickly, providing services via telepractice or utilizing masks and PPE to continue providing services to their clients. For those SLPs utilizing telepractice, it was a very steep learning curve. They had to figure out how to use the platform that employers told them to use, whether appropriate or not for their population. It was a scramble to figure out how to use an unfamiliar platform, finding materials that worked online, and adjusting schedules. At times, this situation seemed untenable, but due to the resilience, tenacity, and determination, many clinicians found the joys of telepractice.

We wrote this book to support our colleagues in providing evidence-based, high-quality telepractice services. This book was developed with the pandemic in mind; however, telepractice has grown since the mid-2000s. In recent years (before the pandemic), SLPs have been adopting telepractice as a service delivery model in increasing numbers.

Although references to the pandemic and COVID-19 are present throughout the book, the work goes well beyond the pandemic. It describes telepractice, which was utilized before the pandemic and will continue to grow, following the resolution of the pandemic.

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Lesley Edwards-Gaither

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1 An Introduction to Telepractice

Telepractice Past and Present

Although telepractice has existed for at least 20 years, it was not widely used until the global health emergency, COVID-19 pandemic. During that time, all settings—from hospitals, outpatient facilities, schools, and academic clinical settings—evaluated their current use and future need for telepractice services and competency. At that time, most schools, private practices, and hospitals quickly turned to telepractice to meet the needs of clients and students with Individual Education Plans (IEPs), as well as adult clients in need of direct speech-language pathology services. The utilization of telepractice went from below 5% among speech-language pathologists (SLPs) to well over 80% (ASHA, 2021a) in a brief period of time.

Many clinicians transitioned to telepractice quickly, with little-to-no training, as schools, private practices, and hospitals were scrambling to figure out how to continue to provide services to their clients or students. Many hospitals continued in-person services as personal protection equipment (PPE) was more readily available for SLPs. However, few school districts considered the impact of online learning for general education or special education students, and how this would look. In addition, they had little knowledge of telepractice or how it could potentially assist them in providing Free and Appropriate Public Education (FAPE). Private

practitioners, on the other hand, knew they needed to move quickly to preserve their practices. Once it became apparent that the nation was in for the long haul with online services, some districts began to take a closer look at what was needed to provide appropriate online services. At the same time, private practices were more deft in obtaining training and moving forward quickly with telepractice services for their clients. Hospitals were also able to move toward teletherapy services in order to meet the needs of outpatient clients.

History of Telepractice

Speech-language pathologists have been providing teletherapy services for some time now. The history of providing services via telecommunications technology goes back to the advent of the telephone in 1876. In the 1880s, physicians began experimenting with telecommunication technologies. The Department of Veterans Affairs (VA) first recorded the use of telemedicine in 1957 (Kumar & Cohn, 2013). It was utilized for a telemental health project in the state of Nebraska. Over the next 20 years, the VA developed other telemedicine projects that led to the adoption of a shared telemedicine program throughout VA hospital system. Since then, the VA has been a leader in developing telepractice (and telemedicine) services and research in this area.

Although there is some controversy about what constitutes the dawn of telecommunications, suffice it to say modern telecommunication systems most likely began with the advent of the telegraph and Morse code in 1844. The dawn of the telegraph allowed information to be sent immediately to sites that were some distance apart. The use of the telegraph spread quickly and was used to transmit messages across the United States and elsewhere, contributing to the expansion of the United States territories, among other things (Houston, 2014).

In 1875 Alexander Graham Bell voiced the now-famous words, "Mr. Watson, come here, I want you!" (Houston, 2014). With that statement, a new form of communication was born—the telephone. A. G. Bell's development of the telephone was based on his work with children who were deaf and his belief that they could develop intel-

ligible spoken language if given appropriate instruction (Houston, 2014). From the emergence and spread of the use of the telephone, more technology evolved, including radio transmission. Following radio was television and space exploration, which leads us to the 1990s and the expansion of the internet. As the use of the internet grew along with computer technology during the 1990s, we saw one of the first uses of videoconferencing technology, and that was Skype. Skype technology was very glitchy in those early days, with audio and video delays, calls dropping during use, and individuals hacking into calls.

Since the advent of Skype, videoconferencing technology has grown and improved significantly. At the time of this writing, most videoconferencing technology is quite good, with minimal delays between the audio and video feeds, allowing SLPs to provide services via telepractice that is equivalent to in-person services. There are currently several platforms that have been built specifically for SLPs. Beyond the videoconferencing technology, these platforms may include scheduling tools, materials, billing software, and so forth. This technology continues to change and improve, assisting SLPs in doing their job more efficiently and effectively.

As noted previously, the boom in technology has contributed to the use of telepractice in the field of speech-language pathology. Research in telepractice has also seen growth. In 2010, there were approximately 40 articles in SLP-specific journals on telepractice; currently, there are well over 150 articles that support the use of telepractice as a service delivery model. Because telepractice is a relatively new service delivery model, the research is still somewhat limited but certainly assists in providing evidence-based services. The focus of much of the research is on SLP services (Coufal et al., 2018; Short et al., 2016; Zahir et al., 2021) in general, with limited articles focused on specific disorders or techniques that work specifically for telepractice. Much of the information gleaned provides solid support for telepractice in general; there is still a need for research in specific disorders and whether or not the evidence used in in-person settings translates to a telepractice service delivery model (Cason & Cohn, 2014; Theodoris, 2011). The research needs to be expanded to larger client populations.

Wiedner and Lowman (2020) conducted a systematic review to examine the evidence for feasibility and efficacy of SLP services-treatment and assessments via telepractice for the adult population. The authors focused on recent research between 2014 and 2019. The authors initially identified 125 articles for their review, with a total of 31 meeting their criteria for inclusion in the qualitative analysis. The authors also collected and presented information regarding equipment used for telepractice and pinpointed the setting in which the service was provided.

These authors (Weidner & Lowman, 2020) concluded that telepractice was feasible and showed preliminary efficacy for using telepractice as a service delivery model. Approximately half of the studies focused on individuals with aphasia at least six months post-stroke. Other articles covered included Parkinson's, primary progressive aphasia, TBI, voice, and mixed populations. As telepractice is a developing service delivery model, there are opportunities for further research. The authors noted limited information in their search on providing telepractice for adults with motor speech disorders, augmentative and alternative communication, and dementia. Overall, there were positive outcomes in this systematic review.

One area noted for further research (Weidner & Lowman, 2020) was the use of facilitators in the telepractice service delivery model. There was little-to-no research regarding the use of facilitators with adults. Although there appears to be some research about facilitators in pediatric and school settings, using them with adults is an area ripe for research.

In 2012, Tindall reviewed the previous research in the use of telepractice with adults with various diagnoses. Tindall noted that prior to 2012, when technology was somewhat limited, compared to today, researchers were finding telepractice appeared to be effective in treating and diagnosing speech and language disorders in adults. It was mentioned that the results, at that time, were promising, but further investigation was needed. Telepractice appeared to enable some clients who might otherwise not receive services to participate in treatment. Empowering older adults and their families to participate in their care helped to relieve the stress associated with caregiver burden.

Burns and Wall (2017) reviewed the use of telepractice with Head and Neck Cancer (HNC) clients. They found that the adoption of telepractice with these clients was slow, in part, due to limited descriptions for implementation, even as telepractice was continuing to grow. There were specific components that should be considered in order to provide efficacy and quality of care to the client. These components included "understanding current research, choosing appropriate technology, client factors including suitability, adequate training and evaluating the program regularly" (Burns & Wall, 2017, p. 140).

Implementing an effective telepractice program for HNC clients takes a team approach and the establishment of specific protocols for successful implementation. Client factors and training are an important part of setting up a plan to ensure that client and clinician have skills necessary for receiving and providing teletherapy services. Burns and Wall (2017) concluded that telepractice is a viable option for the provision of speech and language services for clients with HNC, and should have a good implementation plan in place that includes all stakeholders in the process.

In another systematic review, Malandraki et al. (2021) completed a rapid systemized review of the literature published between January 2020 and August 2020 to develop and guide clinical practice for telepractice in dysphagia across the lifespan. None of the articles on dysphagia in telepractice included pediatric clients. The most common procedure mentioned in telehealth was the clinical swallowing assessment, with therapy second to that. Telehealth was characterized as a "2nd-tier service delivery option" (Malandraki et al., 2021). The authors concluded that during the pandemic, there were limited articles published on the use of telepractice in dysphagia treatment and assessment because of the view that telepractice was 2nd tier.

The authors (Malandraki et al., 2021) proposed a view of telehealth as a 2nd-tier option that was similar to the sentiment expressed by clinicians during their webinars. It was proposed that in order to enhance current evidence by evaluating prepandemic research and combining it with the reviewed articles along with their expertise in the area, they establish a road map to guide clinicians in their clinical decision-making. As reported in other articles (Burns & Wall, 2017;