

Tele-AAC

Augmentative and Alternative Communication Through Telepractice

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Typeset in 11/13 Garamond by Flanagan's Publishing Services, Inc.
Printed in the United States of America by Integrated Books International

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Library of Congress Cataloging-in-Publication Data:

Names: Hall, Nerissa, editor. | Juengling-Sudkamp, Jenifer, editor. | Gutmann, Michelle L., editor. | Cohn, Ellen R. (Speech therapist), editor.
Title: Tele-AAC : augmentative and alternative communication through telepractice / [edited by] Nerissa Hall, Jenifer Juengling-Sudkamp, Michelle L. Gutmann, Ellen R. Cohn.
Description: San Diego, CA : Plural Publishing, [2020] | Includes bibliographical references and index.
Identifiers: LCCN 2019017789 | ISBN 9781635501452 (alk. paper) | ISBN 1635501458 (alk. paper)
Subjects: | MESH: Communication Aids for Disabled | Telemedicine | Speech Therapy—methods | Telecommunications
Classification: LCC RC423 | NLM WL 340.2 | DDC 616.85/503—dc23
LC record available at <https://lcn.loc.gov/2019017789>

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§ Foreword §

In the light of the current technological revolution, it is essential for the field of speech-language pathology to integrate technology into service delivery. ASHA defines “telepractice” as “the application of telecommunications technology to the delivery of speech—language pathology and audiology professional services at a distance by linking clinician to client or clinician to clinician for assessment, intervention, and/or consultation” (ASHA Telepractice Practice Portal, n.d.-a). Speech-language intervention services via telepractice are provided in a variety of environments, including schools, hospitals, outpatient clinics, private practice, client homes, residential health care facilities, etc. Augmentative and alternative communication makes use of “a variety of techniques and tools” (ASHA AAC Practice Portal, n.d.-b) to help the individuals express thoughts, wants and needs, feelings, and ideas. Integrating the use of telecommunications technology to provide AAC services would be a logical direction to take for speech-language pathologists.

It has been well documented (Marvin, Montano, Fusco, & Gould, 2003) that speech-language pathologists have limited pre-service training in the area of augmentative and alternative communication (AAC) services. Speech-language pathologists feel unprepared to conduct AAC evaluations as well provide AAC services (Anderson, 2012). This has resulted in a need for unique strategies to increase speech-language pathologists’ expertise in AAC as well as to provide AAC services. Tele-AAC is a possible solution to providing AAC services where an identified scarcity of speech-language pathologists exists.

Tele-AAC is the use of telepractice specifically for providing services to individuals using AAC (Hall & Boisvert, 2014). It shows promise for offering cost-effective services at a distance to underserved populations. However, although tele-AAC provides unique opportunities, the field is relatively new and therefore not without the need for developing consistent procedures and practices for its implementation.

This book, *Tele-AAC: Augmentative and Alternative Communication Through Telepractice*, promises to provide such information and solutions to the dilemma of providing consistent practices and services. Leaders and contributors in the field of telepractice and tele-AAC provided their expertise while contributing to this book. Chapters that clarify and define the terms tele-AAC, highlight the procedures used while providing assessment and intervention via tele-AAC, identify ethical and cultural considerations while providing tele-AAC, and demonstrate its application in a variety of settings will help to guide the speech-language pathologist to determining solutions while using tele-AAC.

In closing, to move both fields (telepractice and AAC) forward, we need to combine aspects of both and develop consistent and dependable procedures as highlighted in this book on tele-AAC.

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§ Preface §

In the summer of 2012, as part of the 15th Biennial Conference of International Society for Augmentative and Alternative Communication (ISAAC), a group of researchers and practitioners participated in a working seminar on Tele-AAC: AAC Meets Telerehabilitation—Envisioning Transformative Tele-AAC Research (Hill, 2012). As part of this working seminar, authors Michelle L. Gutmann, Nerissa Hall, and Ellen R. Cohn, alongside Kate Anderson, Michelle K. Boisvert, Janis Doneski-Nicol, Cynthia Morelock, and Richard Steele, developed a Tele-AAC Resolution (Anderson et al., 2012). This document detailed “the importance of identifying and characterizing the unique opportunities and constraints of Tele-AAC in all aspects of service delivery” (p. 79).

At the time of this conference, tele-AAC was in its infancy, and was just starting to be explored in university research environments. The complexity of sharing not only the image of the individual, but also the simultaneous representation of his or her AAC system from an ideal vantage point, contributed to the technological considerations of this service delivery method. However, despite the added challenges of incorporating an AAC system into the virtual environment, the potential of tele-AAC was evident. The collaborative efforts of the Working Group of the 2012 ISAAC Research Symposium served to keep the idea of tele-AAC in motion.

Members of the Working Group continued to explore telepractice and AAC (as well as tele-AAC) in their respective practices. In February of 2017, Gutmann, clinical professor at Purdue University specializing in AAC for adults with neurogenic communication disorders and/or neurodegenerative disease and acting as the new professional development manager of the American Speech-Language-Hearing Association’s (ASHA) Special Interest Group 12 (the group dedicated to AAC), reached out to authors Hall and Cohn in an effort to put together a panel of presenters interested in talking about tele-AAC at the 2017 ASHA Convention. Cohn, professor at University of Pittsburgh, founder and past coordinator of ASHA’s SIG 18 (focusing on telepractice)

and founding editor of the International Journal of Telerehabilitation, had set up and moderated the tele-AAC Working Group for ISAAC in 2012. Hall had completed her dissertation at the University of Massachusetts at Amherst exploring the viability and effectiveness of tele-AAC for intervention and consultative purposes, and was practicing tele-AAC as part of her work with Commūnicāre, LLC (her company co-founded with business partner Hillary Jellison).

Cohn and Hall offered expertise in telepractice and tele-AAC, respectively, for school-aged populations, and the panel needed input from a practitioner exploring tele-AAC for adult populations. Meher Banajee, the leader of SIG 12's Coordinating Committee, recommended Jenifer Juengling-Sudkamp, a speech-language pathologist at the Southeast Louisiana Veterans Health Care System/VA and adjunct professor at Tulane University School of Medicine to present on tele-AAC with adults (specifically neurodegenerative disorders and traumatic brain injury). Preparation for this 2017 Convention three-hour short course marked the beginning of this collaborative team and set in motion the development of this book, one of the first published texts detailing and describing tele-AAC.

This book, *Tele-AAC: Augmentative and Alternative Communication Through Telepractice*, represents the transdisciplinary collaboration and innovation that occurs when fields, practitioners, theories, and theorists team up to make way for new ideas, new practices, and new ways to support individuals with complex communication needs. The fields of telepractice and AAC work tirelessly to explore how leveraging technology can improve access to high-quality services from top-notch clinicians irrespective of one's location, and access to tools and techniques to empower individuals to have a voice, autonomy, independence, and a greater quality of life irrespective of their different abilities.

Tele-AAC: Augmentative and Alternative Communication Through Telepractice guides readers through the fundamentals of tele-AAC, teams, and services, and demonstrates application of such services through a number of case examples. The content of the book has been enriched by the input and knowledge offered by leaders from both telepractice and AAC disciplines, and offers readers the right combination of foundational information and

principles to help practitioners understand tele-AAC. The field of tele-AAC is evolving and will transform as the technology changes and advances. This book provides a threshold of understanding from which the field and practitioners can grow.

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Nerissa Hall, PhD, CCC-SLP, ATP, is co-founder of Commūnicāre, LLC, a company that specializes in augmentative and alternative communication, assistive technology, telepractice, and tele-AAC working primarily with school-aged individuals, providing specialized, evidence-based intervention, assessment and consultation services. Dr. Hall received her Master and Doctorate degrees from the University of Massachusetts-Amherst, focusing on tele-AAC,

and has presented nationally regarding this and other related topics. Dr. Hall has served as a LEND Fellow, adjunct faculty at Elms, Cambridge College and the University of Massachusetts-Amherst. She is former Associate Editor of ASHA's journal, *Perspectives on Telepractice*, and serves on the editorial board of this journal and others.

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Michelle L. Gutmann, PhD, CCC-SLP, is a clinical professor at Purdue University Department of Speech, Language, and Hearing Sciences, where she teaches a variety of graduate courses including AAC, Counseling in Communication Disorders, and Motor Speech Disorders. After completing her doctoral studies and prior to coming to Purdue, she served as a clinical assistant professor and the Speech-Language Pathologist for the ALS Clinic at Vanderbilt University Medical Center. Dr. Gutmann is active

in research and clinical endeavors related to the application and implementation of AAC for adults with neurogenic communication disorders and/or neurodegenerative disease. She has published and presented nationally.

Ellen R. Cohn, PhD, CCC-SLP, ASHA-F, is a professor in the Department of Communication Science and Disorders, University of Pittsburgh. She teaches courses in cleft palate/craniofacial disorders, professional issues, culture, diversity and healthcare, and rhetoric and communication. Dr. Cohn has co-authored books on the topics of telerehabilitation, communication disorders casebook, video-fluoroscopy/cleft palate; diversity



in higher education; and communication, and is founding editor of the *International Journal of Telerehabilitation*. Dr. Cohn is a past investigator for the Department of Education—National Institute on Disability and Rehabilitation Research, Rehabilitation Engineering Research Center on Telerehabilitation. She was the founding coordinator of the ASHA Special Interest Group on Telepractice (#18) and is a past director of the American Telemedicine Association.

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We dedicate this book to the users of augmentative and alternative communication (AAC) who inspire us to do our best to serve them, and to the tele-AAC practitioners who strive to extend the reach of AAC.



Introduction to Telepractice

Jana Cason and Ellen R. Cohn

INTRODUCTION

Telepractice describes the use of telecommunications technology for the delivery of professional services wherein the clinician and client are in different physical locations. Clinicians are engaging in telepractice in home, school, work, community, and corporate settings. The American Speech-Language-Hearing Association (ASHA) affirms that telepractice can be employed for assessment, intervention, and/or consultation (ASHA, 2018b). Benefits of telepractice include improved access to clinicians, and ongoing professional support and reduced travel time for families, caregivers, and clinicians (Tindall, 2012; Tindall & Huebner, 2009). When applied to augmentative and alternative communication (AAC) services, not only does telepractice improve access and result in reduced travel, it also enables the remote clinician to observe the use of the speech-generating device (SGD) in authentic, natural environments such as home, school, work, and community settings (Anderson, Balandin, & Stancliffe, 2015; Cohn & Cason, 2014).

TERMINOLOGY

The nascent nature of telepractice terminology requires clinicians to be aware of various terms to describe in essence the same concept: remote service delivery. ASHA endorses the term telepractice (ASHA, 2018b). This term was selected to “avoid the misperception that these services are used only in health care settings” (ASHA, 2018b, para. 3). Other terms frequently used by speech-language pathologists and audiologists when describing telepractice include telespeech, speech teletherapy, teleaudiology, and tele-AAC. In contrast, the American Occupational Therapy Association (AOTA) and the American Physical Therapy Association (APTA) endorse the term telehealth (AOTA, 2018; APTA, 2018). The American Telemedicine Association (ATA) uses the term telerehabilitation, which encompasses both habilitation and rehabilitation services provided by clinicians (Richmond et al., 2017). This book uses the terms telepractice and tele-AAC to describe the remote service delivery model and its application specifically to AAC services.

Other important telepractice terminology describes whether services are interactive (i.e., synchronous) or use recorded data such as video, images, or voice recordings that are sent to the remote clinician (i.e., asynchronous), also referred to as store-and-forward. A hybrid approach incorporates a combination of synchronous, asynchronous, and/or in-person services (ASHA, 2018b). In addition to terms describing the delivery model, clinicians should be aware of terms associated with telehealth systems including hardware (e.g., computer, mobile device, monitor, keyboard), software (e.g., Web meeting/videoconferencing platform), and peripherals such as an eye gaze camera (Curtis, 2014). See Chapter 7 of this book for an in-depth description of basic and advanced tele-AAC technology.

EVIDENCE FOR TELE-AAC

A high satisfaction rate has been reported with the use of telepractice for AAC services (LoPresti, Jinks, & Simpson, 2015;

Timpe, Kent-Walsh, Harrington, Lavadia, & Vazquez, 2016). Hall, Boisvert, Jellison, and Andrianopoulos (2014) demonstrated the feasibility of using tele-AAC to deliver a grammatical morpheme language intervention to “nonverbal individuals who have complex and severe communication needs and physical disabilities” (p. 69). Similarly, Curtis (2014) described the use of telepractice for remote training for AAC devices.

Telepractice can also be used for assessment administration. Taylor, Armfield, Dodrill, and Smith (2014) examined the telepractice assessment literature and concluded that there is some evidence to support the validity of telepractice assessments for oromotor function, speech intelligibility, and language. Fissel, Mitchell, and Alvares (2015) evaluated literacy assessment and intervention and presented an adapted telepractice assessment model. The researchers concluded, “Telepractice appears to be a feasible medium with the potential to assess, intervene with, and meet the diverse needs of children with complex communication needs, particularly those students with limited access to AAC specialists who may benefit from telepractice-based consultations” (Fissel, Mitchell, & Alvares, 2015, p. 55). Some publishers provide assessment materials in electronic formats, which may be amenable to remote administration and scoring. Pearson, a publisher of speech-language pathology and audiology assessments, has a dedicated telepractice webpage with general guidelines and resources for administering assessments via telepractice (Pearson, 2018). See Chapter 9 of this book for a detailed discussion of tele-AAC assessment.

KEY TELEPRACTICE ISSUES

Regulation

Federal Law

Clinicians should be familiar with requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH), and Family Educational Rights and Privacy

Act of 1974 (FERPA). These laws outline requirements to protect privacy and security of health information and educational records. Hardware, software, data storage, and contracts with third-party vendors should meet minimal privacy and security standards (Peterson & Watzlaf, 2014). Additionally, operational processes and protocols should incorporate encryption and user authentication methods (Peterson & Watzlaf, 2014; Smith, Zhou, & Watzlaf, 2017). Chapter 2 of this book provides an overview of tele-AAC privacy, security, and safety considerations.

State Law and Licensure

Clinicians should investigate state-specific legal and regulatory requirements before engaging in the provision of services via telepractice. ASHA's State-by-State resource outlines key practice requirements for each state (ASHA, 2018c). In most situations, clinicians who engage in telepractice across state lines must also possess a license in the state where the client is located, deemed the *location of service* (ASHA, 2018b; Cason & Brannon, 2011). Several disciplines including medicine, nursing, psychology, emergency management service (EMS), and physical therapy have established license compacts (Adrian, 2017). These compacts permit clinicians to engage in interstate practice in states participating in the compact. ASHA has expressed interest in exploring a mechanism to enable license portability; however, a path for license portability (i.e., license compact) for speech-language pathologists (SLPs) and audiologists has not yet been established (ASHA, 2018b).

State Teacher Requirements

In addition to state licensure, clinicians may also need to obtain teacher certification when providing services within a school setting (ASHA, 2018b). The requirements for teacher certification are state-specific, as there is no national uniformity. ASHA (2018d) provides a credentialing summary for SLPs by state. Because a state can change its teacher certification requirements at any time, applicants should also consult their state(s) of interest. The needed information is often published by a state's department of education.

International Practice

It appears that international telepractice is a growing area of interest, though even the most basic data (e.g., country of practice; income derived) are not yet available. Why does international telepractice appear so attractive to many?

- It is not difficult for entrepreneurial clinicians and telepractice companies alike to discern that international telepractice provides access to profitable and unsaturated markets.
- Some clinicians look toward international telepractice as a means to avoid the need to apply for multiple state licenses.
- From an altruistic standpoint, tele-AAC is an economical way to disseminate AAC expertise globally. Replicating in-person volunteer “mission visits,” a practitioner need not practice in isolation; an inter-professional team can provide “virtual mission visits.”
- On the consumer side, clients are approaching recognized expert clinicians across national boundaries to engage in telepractice, due to a dearth of expertise in their geographic regions. Furthermore, it is not far-fetched to imagine that clients will eventually engage in international virtual “telepractice tourism” to seek less expensive therapy.

However, at the current time, becoming engaged in international practice may not be as easy as it appears. There is not yet a complete and periodically updated compendium of country-specific licensure laws and application requirements, though some associations provide limited guidance.

From country to country, there can be great variation in the licensure requirements, application procedures and fees, and time for approval. It is important to recognize that mutual recognition of licensure agreements between countries may not necessarily extend to telepractice.

Finally, in addition to abiding by the licensure requirements and laws of the country in which a client resides, the clinician

must be well versed in the cultural and linguistic influences on communication. This content is addressed in Chapter 5 of this book on cultural considerations and international practices.

Reimbursement

Reimbursement models for telepractice include contracts with school districts for services within the educational setting, corporate contracts, private pay, and reimbursement through third-party payers. Many states have coverage parity laws requiring private insurance companies to pay for services provided by telepractice if those same services are paid for when provided in-person (Center for Connected Health Policy [CCHP], 2016). However, coverage parity (requiring insurers to pay for services provided by telepractice) is not the same as payment parity (equal reimbursement rate). Thus, some states are implementing telepractice payment parity laws in addition to coverage parity laws (CCHP, 2016).

Medicaid is an entitlement program jointly funded by state and federal government (Center for Medicaid and Medicare Services [CMS], n.d.). States have flexibility in how their Medicaid programs are structured. As a result, coverage and reimbursement for services provided by telepractice varies by state. Clinicians should review state-specific Medicaid regulations to determine telepractice requirements and reimbursement. At the time of this writing, speech-language pathologists and audiologists are not recognized as telehealth fee-for-service providers by CMS for reimbursement of services provided via telepractice for Medicare recipients (CMS, 2016). ASHA and other organizations are actively lobbying to expand the CMS list of eligible telehealth providers to include speech-language pathologists and audiologists (ASHA, 2018b).

Practice Considerations

Clinicians can gain clinical and technical competency for telepractice through formal and informal education, workshops, webi-