Introduction

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Introduction

Dr. Houston is an Associate Professor in the School of Speech-Language Pathology and Audiology at The University of Akron. His primary areas of research are listening & spoken language development in children with hearing loss, parent engagement, & telepractice.

K. Todd Houston, PhD, CCC-SLP, LSLC Cert. AVT
What is Telepractice?

The application of telecommunications technology to deliver professional services at a distance by linking clinician to client, or clinician to clinician for assessment, intervention, and/or consultation.

(ASHA, 2005)

Quality of Service Delivery

• Telepractice is an appropriate model of service delivery for the professions of Speech-Language Pathology & Audiology.

• The quality of services delivered via telepractice must be consistent with the quality of services delivered face-to-face.

(ASHA, 2005)

Terminology
Technologies Overview

- The “videoconferencing system” uses digital compression of audio and video streams in real time
  - Codec: coder/decoder
- Other requirements:
  - Video input: video camera/webcam
  - Video output: computer monitor, TV, projector
  - Audio input: microphones
  - Audio output: usually loudspeakers
  - Data transfer: analog/digital phone network, Internet
  - Computer

Types of Videoconferencing Systems

- Dedicated Systems
  - Have all required components packaged into single piece of equipment
  - Types: large group, small group, and individual videoconferencing
- Desktop Systems
  - Add-ons (usually hardware boards) to normal PCs, changing them into videoconferencing devices
  - Use a range of different cameras and microphones

Technology Considerations

- Up-front Costs
- Ongoing Service Fees
- Bandwidth & Reliability
- Technology Maintenance & Support
- Quality of Equipment (video, image size, camera pan, & zoom)
- Recording telepractice session
- Security
- Ease of Use
Privacy Considerations
- Privacy rights are just as important through telepractice services as they are in traditional services
- Privacy procedures must be in congruence with federal regulations:
  - Applying privacy regulations:
    - Observing “live” telepractice sessions- informed consent must be obtained before anyone observes
    - Recording telepractice sessions- permission from family to record

Beneficial Outcomes
- Better knowledge of language development process
- Increased skills and confidence in encouraging child’s language and listening
- Child responsiveness to parent improved
- Improved child language & listening skills
- Increased skills of family members (parents, spouses, adult children) as coaches
- More “comfortable” participation with adults

Benefits to Telepractice Services
- Provides access to qualified providers
- Decreases travel constraints
- Reduces health-related cancellations
- Increases use of family-centered coaching strategies
- Intensifies, increases family member/spouse involvement
- Provides opportunities to work as a team
- Allows “natural” environment benefits when connecting with client in his/her home
Benefit: Providing Access to Qualified Providers

- Many children & adults with hearing loss are not receiving appropriate habilitation/rehabilitation services
- Severe shortage of early childhood professionals with adequate knowledge & training to effectively educate
- Lack of a “critical mass” of children who are D/HH in a specific geographic area
  - Resulting in difficulty finding qualified providers in that area
- Listening and Spoken Language Specialists (LSLS) are often in demand in rural areas & can be accessed through telepractice
- Adults may struggle to find aural rehabilitation services from qualified providers in their community

Benefit: Decreasing Travel Constraints

- Travel-related expenses can consume a large part of a program’s budget; TI can reduce direct expenses such as mileage reimbursement and professional time
- Travel time for professionals can be significantly decreased, allowing more children to be served in the same amount of time
- Eliminates the family’s/client’s need to travel to a clinic
- Avoids the effect of inclement weather resulting in cancelled sessions

Benefit: Reducing Health-Related Cancellations

- Health-related cancellations can be reduced when the child/client only has a minor illness and can still participate
- Doesn’t expose the early interventionist to illnesses
- Can decrease exposure of chronic health conditions to others, reducing the risk of health problems
- Decreased cancellations for families/adults participating in telepractice
- As adults get older, other health issues may prevent them from attending aural rehabilitation sessions outside the home
Benefit: Increasing Use of Family-Centered Coaching Strategies

- Families can learn new skills to interact with their child through "coaching" by increasing parent knowledge & improving parent-child interactions
- The coach (SLP) supports & encourages parents as they learn and practice new strategies by providing ongoing feedback
- Coaching is an important part of fostering listening and spoken language in children who are D/HH.
- Coaching can also include family members of the adult/spouse

Benefit: Intensifies Family Member Involvement

- Opportunity for all family members to benefit and be involved in the intervention/rehabilitation
- Ability to record and store sessions
  - Can be shared with family members and professionals on intervention team
  - Family members absent from session can learn strategies used
  - All family members can observe week to week progress
  - Videos can be posted on secure website for ongoing access
  - Can be shared with friends & other caregivers

Benefit: Provides Opportunities to Work as a Team

- Allows professionals who may have been limited by distance or scheduling to still participate in intervention/rehabilitation sessions
- Allows greater interprofessional collaboration & fosters enhanced service coordination
- Team members who may not have been able to participate in meetings can connect through telepractice, rather than missing a meeting or sending a designee
Challenges to Telepractice

- Accessing a high-quality Internet connection
- Feeling confident with technology
- Having a quiet space in the home
- Assuring providers have skills with technology and intervention
- Recognizing telepractice isn’t for everyone
- Obtaining reimbursement

Accessing a High-Quality Internet Connection, Equipment

- Reliable video and audio communication can be a challenge
- Monthly costs of internet may be prohibitive to families on a tight budget
- Need to consider costs of internet fees, the computer, camera, and microphone
- Some programs may provide the equipment and cover costs but may not be cost-effective when compared to costs of travel time
- Technology can be “glitchy” and problematic

Feeling Confident with Technology

- Some families/individuals are not confident in using technology, regardless of training
  - Can influence decision to participate in telepractice services
  - Some families may start with traditional services & then move to telepractice
- There are ways to simplify technology, such as using a laptop with built-in camera, microphone, and speakers
- Availability of a technical support staff may ensure continued services when trouble-shooting problems occur
Assuring Providers Have Skills With Technology

- The clinician needs to be comfortable using the hardware and software supporting telepractice
- Be able to troubleshoot common problems
- Has the task of facilitating activities to support the session’s objectives and attending to the operation of the technology

Implementation of Telepractice Services

- Services must adhere to ASHA Telepractice Service Delivery Guidelines
- Important that services are keeping with recommended family-centered intervention practices
- A good telepractice session should look the same as a high-quality traditional services
- Recommended practices include (for early intervention):
  - The use of coaching strategies
  - Family-centered early intervention

Skills Checklist for Providers of Telepractice

- Has basic knowledge of computers and other equipment being used
- Can troubleshoot video and audio equipment
- Attends to technology while conducting the session
- Organizes materials for activities ahead of time based on naturally-occurring routines
- Conducts activities that involve materials and actions that are easily depicted over video/audio
Skills Checklist for Providers of Telepractice

- Has a variety of activities planned in case some are not successful
- Can adjust activities based on immediate interests of child or adults
- Demonstrates use of coaching techniques when working w/ family or individual
- Knowledge of adult learning strategies – when working with an adult with hearing loss OR with a parent of a child with hearing loss

Skills Checklist for Family/Client Receiving Telepractice Services

- Has basic comfort level with computers and willingness to learn new technologies
- Identifies activities, strategies, learning opportunities, and practices that will enhance their child’s learning and communication development
- Demonstrates strategies that are modeled & discussed during the session
- Makes decisions regarding which strategies and activities work best for their child/family/individual
- Reflects on the telepractice sessions
- Implements strategies that work and revises the strategy when it doesn’t have desired outcome

Telepractice & eLearning Lab

- The University of Akron serves multiple families and children with hearing loss and auditory related conditions and adults with post-lingual hearing loss and cochlear implants
- Young children to older adults
- Pediatric therapy focuses primarily on coaching model
- Adult therapy with a direct, client centered focus
Sequence of Therapy Preparation

1) Referral to clinic
2) In-person visit for full evaluation
3) Completion of home inventories
4) Technology test session
5) Lesson plans emailed at least 48 hours prior to session
6) Parent gathers materials and prepares by collaborating with clinicians by email or phone (adults typically don’t need to gather materials)
7) Session begins

Home Inventories

• Technology inventory
  — Type of Internet connection
  — Headset usage, webcam type, etc.
• Toy/activity inventory
  — Child’s favorite toys
  — Favorite books/authors
  — TV shows, movies, characters
  — Popular activities

Telepractice Classroom
Emailed Printables

- Bingo boards
- Go fish cards
- Flashcards
- Sequence stories
- Vocabulary pictures
- Riddles
- Barrier games
- Story books
- Word lists

Telepractice Classroom

Conducting the Telepractice Session

1. Reviewing goals and activities
   - Reviewing goals from previous week, new updates, review goals for current session, check hearing devices
2. Conducting the lesson/activity
   - Demonstration of new strategies/techniques, coaching the parent or adult, discuss integration of goals into daily home routines, strategies for improving/controlling communication opportunities (adults)
3. Debriefing
   - Allow questions from parents, discuss continuation or selection of new goals, summarize session and goals for the coming week
Direct vs. Indirect Therapy

- Indirect model:
  - Coaching
  - Parent takes lead role during
  - SLP becomes facilitator
  - Counseling
- Direct model:
  - Bottom up vs. top down approach
  - Counseling

Adult Aural Rehabilitation

"...the goal of aural rehabilitation for the adult is ambitious
— to increase the likelihood, the level, of successful
communication over the client’s lifetime."

Houston, K.T., and Montgomery, A.A. Auditory-visual integration: A practical

The Role of Adult Aural Rehabilitation

- Major activities that might increase the likelihood
  communication include:
  - Reducing negative emotional reactions such as anger,
    frustration, fear, & withdrawal related to communication
difficulties.
  - Making cognitive processes & attitudes toward hearing
    impairment more realistic.
The Role of Adult Aural Rehabilitation

- Increasing knowledge of the context of the communication, including the language/dialect used, current news & events, the talkers, the topic, the history of the participants, etc.
- Maximizing auditory input through professionally fitted hearing technology.

Adult Aural Rehab: Trends for the Future

- Individuals are living longer.
- Baby Boomers are getting older & are technologically proficient.
- Technology
  - Increased number of individuals who can now benefit from hearing technology, especially cochlear implants.
  - Telepractice can be used to deliver a range of adult rehabilitation services.

Telepractice Classroom

- As the one or the other of Ratification may be proposed by the Congress:
  - 1) mode
  - 2) mood
  - 3) mood
  - 4) mood
Summary

- Newborn hearing screening, early diagnosis of hearing loss, early intervention, early fitting of hearing technology – all lead to better communication outcomes for children with hearing loss & their families.
- Parents want access to well-trained professionals who have the knowledge & skills to facilitate listening & spoken language, such as Auditory-Verbal practitioners.
- Adults seeking aural rehabilitation services also are seeking qualified providers – who may not be available in their communities.
- Because of cheaper technology & access to broadband Internet connections, telepractice is a viable model of service delivery that is increasing in the United States & around the world!

References


Resources

Current issue of The Volta Review focuses on current knowledge and best practices in telepractice. The issue is available through the Alexander Graham Bell Association for the Deaf & Hard of Hearing at www.agbell.org.
Resources


Thank You for Listening!

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Questions and Ideas
Upcoming Online Sessions

Next Up:

Thursday, February 7th  2:00 pm ET
Listening to Learn: Auditory Comprehension Strategies for Older Students
Ashley Garber, M.S., CCC-SLP, LSLC Cert. AVT, Listening and Language Connections

Tuesday, February 26th  2:00 pm ET
Reading to Learn: Vocabulary Strategies for Older Students
Ashley Garber, M.S., CCC-SLP, LSLC Cert. AVT, Listening and Language Connections

Contact Cochlear Americas

• For inquiries and comments on this seminar or a HOPE program, please contact: hope@cochlear.com

• For a Certificate of Participation, please send your completed Feedback Form to:
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