TELEHEALTH IN ADULT POPULATIONS DURING AND BEYOND COVID-19: THE PURDUE SLHS PERSPECTIVE

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CEU Requirements
To receive ASHA CEUs, there are two things we will need you to do in order to collect the full .10 amount. Please note there will not be any partial credit given for this course.

1. The first component is to attend this webinar in its entirety tonight.
   a. Your attendance will be tracked through the system and only those who are present through the whole webinar, will be eligible for credit.
   b. The moderator will designate the end of the webinar.

2. Secondly, we will need you to fill out a Learning Outcome Assessment form.
   a. This electronic form/questionnaire will be emailed to you the day after the webinar event.
   b. You will need to submit your form questionnaire, within the software system, no later than 15 calendar days after this event which will be Friday December 18.

A confirmation email will be sent to you once we have verified your attendance and received your form.

If you have any questions about your CEU redemption, please contact our administrator Teasha McKinley at teasha@purdue.edu.
Webinar 3: Telehealth Adaptations for Adult Populations
Speakers: Bauer Malandraki, Gutmann, Huber, Hubertz, Malandraki, Wetzel
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Outline

- Telehealth screenings for adults
- Telehealth for adult dysphagia services
- Telehealth for adult transgender voice services
- Telehealth for adult language and AAC services
- Telehealth for adult audiology services
- Principles for adult motor speech tele-services

Reminder: TELEHEALTH ROADMAP

Operational/Service Considerations

1. Consider telehealth
   - Legal considerations
     - Compliance with laws & regulations
     - Secure network & platform
     - Privacy
     - Consenting

2. Reimbursement
   - Check reimbursement policies

3. Clinician Training

4. Patient Safety
   - Detailed emergency plan (consent form)
   - Session reminder of emergency plan
   - Facilitator
   - Adequate connection

5. Internet Connectivity
   - Recommended > 384 Kbps upload & download speeds
   (Cough et al., 2018)

6. Technology and Devices
   - Many videoconferencing options
   - Consider privacy, security, & reimbursement
   - Peripheral devices optional

Infrastructure

7. Patient Candidacy
   - Consider general criteria (e.g. medical stability)
   - Consider tele-specific criteria
   - Consider setting
   More on Table 3

Patients & Facilitators

8. Facilitators
   - Training specific to setting
   - Amenable to emergency plan
   - Able & willing to facilitate session as needed
   More on Table 3

Image by Rachel Arkenberg - from Malandraki et al., accepted, AJSLP

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TELEHEALTH SCREENINGS FOR ADULTS

The Need
Cancelled practica
Acute care
Medical outpatient

The Goals
Student clinical hours
Community engagement
Generate clinic caseload

CASE HISTORY
• General concerns
• Medical history
• Specific speech-language concerns
• Participation / functional impact

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TELEHEALTH SCREENINGS FOR ADULTS

SCREENING TOOL

PATIENT REPORTED OUTCOME MEASURES

• The Reflux Symptom Index (Belafsky et al, 2002)
• Eating Assessment Tool (Belafsky et al, 2008)
• The Communicative Participation Item Bank General Short Form (Baylor et al, 2013)
• Functional Oral Intake Scale (Crary et al, 2005)
• Glottal Function Index (Bach et al, 2005)

COGNITIVE SCREENER FOR DEMENTIA

• Mini-Addenbrooke’s Cognitive Examination American Version B (Hsieh et al, 2014)

1. Coordinate workflow with clinic office
   • Templates/script
   • Referral flowchart
   • Screening contact form

2. Advertise
   • University contacts
   • Local senior citizen groups
   • Independent and assisted senior living communities
   • Support groups
   • Rock Steady

FREE Adult Services via Telepractice

Are you or a loved one experiencing memory or cognitive changes?
Are you or a loved one experiencing changes in your voice or swallowing?
Are you doing well in all of the above but just want some reassurance?

The M.B. Stern Speech & Language Clinic is now offering free telepractice services for adults of all ages!

If you are interested:
• The first step is to sign up for a comprehensive virtual screening
• To participate, you will need a computer, laptop or tablet with a webcam
• The screenings will be completed by a speech-language pathologist and 1-2 graduate students
• Total appointment will last approximately 30 minutes to 1 hour
• If you qualify for additional treatment or services, a referral will be provided upon completion of the screening

If you are interested, please contact:

Melissa Hidy
Office: (765) 494-3765
Email: madody@purdue.edu

Audrey Malandraki
Office: (765) 494-4225
Email: amalandraki@purdue.edu

*Free services are available for a limited time only*
TELEHEALTH SCREENINGS FOR ADULTS

PRE-SCREENING
1. Student prep
   - Mock screenings via Webex
2. Patient Prep / Set-up
   - Eligibility & Candidacy
   - Scheduling & Consent
   - Technology
   - Info sheet & Visual Webex guide
   - Front desk support

ICTELEHEALTH SCREENINGS FOR ADULTS

1. Open the email from the speech-language clinical faculty member. Scroll to their Webex meeting link and click on.
2. Webex will automatically download the app. Click on the Installer file in the bottom corner to install the app.
3. The screen below will appear once the app is installed. To join the meeting, enter your full name and email address, and tap Join.
4. By default, your microphone and camera are turned off. To join with your video on, click Start Video.
5. Once you are ready, click on Join. You will be connected to the clinical faculty's personal Webex room.
6. When the meeting is over, click on the X on the top right corner and select Leave Meeting to exit the app.

Welcome!

We look forward to your upcoming virtual screening session! A few minutes before your scheduled time, please go to this link (you will need to connect video and audio):

https://purdue-restricted.webex.com/telehealth

How to prepare for session:

- Make notes to review regarding any questions you have or information you wish to share with the clinicians.
- Reduce background noise (turn off TV’s, music, etc).
- Reduce or remove common physical or visual distractions. Silence phones.
- Identify where you will sit.

Technology Check:

- Computer, laptop or tablet is fully charged or plugged in, reliable internet connection.
- External webcam/microphone is plugged in and recognized by computer.
- Connection software is updated.
- No other programs are running on the computer.
- Computer, laptop or tablet is in a visible/audible place.
- Monitor or tablet is in position so clinicians can see and hear you.
- If the connection is lost during the session, use the link above to reconnect to the session.

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TELEHEALTH SCREENINGS FOR ADULTS

DURING SCREENING
• Audio / visual check and troubleshooting
  • Camera positioning, distance from microphone, need for second audio connection
• Screen sharing of assessment tool
• Questions and PROMs
• Results and recommendation sharing
• Waiting room and student de-brief
• Screening Report Form

TELEHEALTH SCREENINGS FOR ADULTS

POST-SCREENING REFLECTIONS
• Expand knowledge and prep for using accessibility devices, e.g., CapTel
• Have staff set-up trial run to ensure adequate a/v connection prior to appointment to maximize appt. time
**TELEHEALTH FOR ADULT DYSPHAGIA SERVICES**

### Pre-COVID-19 research evidence

**• Dysphagia Assessment**
- Case history completion (Kantarcigil & Malandraki, 2017)
- Clinical dysphagia assessments
  - In adults (synchronous) (e.g., Ward et al., 2007, 2009; Sharma et al., 2011; Ward et al., 2012; Ward et al., 2013; Morrell et al., 2017)
  - In children (e.g., Kantarcigil et al., 2016; Raatz et al., 2019)
  - VFSS in adults (e.g., Malandraki et al., 2011; Burns et al., 2016; Malandraki et al., 2013)

**• Dysphagia Treatment**
- Treatment in HNC patients (e.g., Burns et al., 2017; Collins et al., 2017; Wall et al., 2020)
- Treatment in a complex pediatric patient (case report) (Malandraki et al., 2014)
- Compensatory treatments – case reports (Casell, 2016)
- International tele-consultation (Greece-US) (Malandraki et al., 2013); (India-US) (Mayadevi et al., 2018)
- Apps and devices for dysphagia rehabilitation (e.g., Kim et al., 2019; Starmer et al., 2018; Wall et al., 201;)

### Levels of evidence
- I to III

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**TELEHEALTH FOR ADULT DYSPHAGIA SERVICES**

**• Patient Safety**
- “Can we provide telehealth for dysphagia services safely?”
- “What if someone aspirates/chokes during the tele-session?”

*(Burns, Malandraki, & Ward, 2020; Malandraki, 2020)*

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TELEHEALTH FOR ADULT DYSPHAGIA SERVICES

- **Clinical Evaluations**
  - Case history and PRO measures
  - Synchronous or via secure forms
  - Cranial nerve exams (OPSES) & oral trials
    - Camera and microphone placement
    - Two cameras!
    - Flexibility and adaptability & facilitator support
  - Some components: asynchronously
  - Add standardized tools (Borders et al., accepted, AJSLP)

- **Treatment sessions**
  - Which interventions?
  - How to validate
  - Pre-session emails and instruction sheets
    - Scripts and step-by-step instructions – screen share
  - Cloud-based / portable devices

Image from: Malandraki et al., accepted, AJSLP

Some examples

Tele-EaT (patent pending)

Inventors: Malandraki & Lee
TELEHEALTH FOR ADULT DYSPHAGIA SERVICES

Examples

Additional resources and training

- Purdue I-EaT Lab Guidelines:
- Queensland Health e-Learning Program:
# Telehealth for Adult Transgender Voice Services

## Needs / Challenges
- Patients in need
- Need for high level audio connection
- Baseline data, mapping tx progress, providing feedback
- Rapport building

## Solutions
- Adaptation to telepractice
- Multiple audio/mic connections
- Utilizing Voice Analyst App on Webex connected smartphone/tablet
- Home environment helped build good relationship

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## Telehealth for Adult Language & AAC Services

**Language Evaluation via Telehealth**
- Pre-appointment discussion re:
  - nature of tasks
  - required technology & e-helper(s)
  - Establish response modes
  - Consent waivers
- Published resources (e.g., Q-Global by Pearson)
- Telepractice considerations for WAB-R subtests
- PDEs of other measures + modified response modes

**Link:**
TELEHEALTH FOR ADULT LANGUAGE & AAC SERVICES

Teletherapy for Adults
- Individual & group options
- Maintained schedule & continuity of services
  - Language therapy v. cognitive therapy
- To facilitate participation
  - Detailed login instructions w/screencasts
  - Conversation re: “rules of the road”
  - Short video reminders
  - Visual referents

SAMPLE VISUAL SUPPORTS FOR ADULT TELETHERAPY

What’s the problem?
- Depression
- Loneliness
- Isolation

How do I solve it now?
- Talk to someone
  [professionals harder, spouse or family easier, spiritual director]

What’s the problem?
- Anxiety

How do I solve it now?
- Rely on faith “This too shall pass”, trust in God
- Realize worry doesn’t get you anywhere
TELEHEALTH FOR AAC SERVICES

AAC Tele-Evaluation requires
- Heavy reliance on e-helper(s), additional camera(s), additional device(s)
- Detailed discussion re: settings, conversation partners, teams etc.
- Request pre-ex video of potential user
- May need vendor(s) to provide device(s)/mounts, set-up

AAC Tele-therapy
- reliance on e-helper(s), additional camera(s), additional device(s)
- May need to control client’s device
- Easier than tele-evaluation

TELEHEALTH AAC SERVICES

15 Search Results for telepractice

Video of the Week: Telepractice in AAC – Working with What You’ve Got
April 19, 2019 by Carla Zangari • Leave your thoughts

Praacticalaac.org telepractice resources

School SLP - video re: AAC teletx

SIG 12 (AAC) Community Zoom webinars

ASHA Facilitator checklist for telepractice services

Link: https://praacticalaac.org/?s=telepractice+
Link for video: https://www.youtube.com/watch?v=Cq46qf39S &feature=emb_logo
TELEHEALTH FOR ADULT AUDIOLOGY SERVICES

- Wide range of application in the field of audiology from diagnostic to intervention services
- Started by identifying what opportunities and limitations exist for providing services and clinical education via telehealth
- Focus on intervention and patient education

Planning/Set up
- Creating a protocol
- Technology
  - Secure Webex
    - Clinician, graduate clinician, patient, patient family member(s)?
    - Additional Bluetooth device needed if remote programming
- Front desk staff provided pre-appointment assistance as needed
- Organized additional materials to send to patients as needed
ADULT AUDIOLOGY TELEHEALTH APPOINTMENTS

- Technology
  - Hearing aids and assistive listening devices
  - Troubleshooting
  - Remote programming
  - Replacing lost devices

- Counseling & patient education
  - Utilizing and/or optimizing technology to improve communication
  - Consultation & orientation
  - Communication strategies
  - Device maintenance

- Considerations with COVID-19
  - Masking wearing impact on communication
  - Mask wearing and hearing aid retention

RESEARCH EVIDENCE AND PRACTICAL GUIDELINES FOR ADULT MOTOR SPEECH DISORDERS

- Thank you to Jordanna Sevitz, a doctoral student in Michelle Troche’s lab at Teachers College, Columbia University, and Brianna Kiefer, my doctoral student, for investigating the literature supporting the use of telemedicine in motor speech disorders and for testing the feasibility of objective measures via telemedicine – watch for the upcoming paper which is provisionally accepted in AJSLP (telemedicine special issue)
- Most of the literature supporting the use of telemedicine in motor speech disorders was conducted under controlled research conditions with specialized equipment and custom software
- The trick is to translate these studies to the real clinical environment
RESEARCH EVIDENCE AND PRACTICAL GUIDELINES FOR ADULT MOTOR SPEECH DISORDERS

• Important to consider using both objective and perceptual measures — critical with telemedicine due to limitations of teleconferencing software

• Difficult to reliably perceive vocal intensity, vocal quality, and potentially intelligibility (mixed outcomes)\(^1\-^3\)

• Studies have shown perceptual ratings of overall speech severity and articulatory precision to be reliable\(^1\-^2\)


RESEARCH EVIDENCE AND PRACTICAL GUIDELINES FOR ADULT MOTOR SPEECH DISORDERS

• What types of objective measures are possible?
  • Fundamental frequency (mean and range), speech rate, utterance length, pause patterns, DDK rates and regularity
  • Important to develop a simple protocol and to use the same protocol with all patients
  • Due to issues with teleconferencing software, measurements of vocal intensity are not valid in most interfaces
  • However, SpeechVive, Inc. has a software that can be used with the SpeechVive device that controls gain and can be used to obtain measures of vocal intensity – available for free right now and can be used with telemedicine

[www.speechvive.com](http://www.speechvive.com)
RESEARCH EVIDENCE AND PRACTICAL GUIDELINES FOR ADULT MOTOR SPEECH DISORDERS

• Do not forget about the value of devices in telepractice treatment
• Lots of options out there:
  • EMST-150 (and a lower threshold option, EMST-75): www.emst150.com
  • PowerBreathe (comes in three levels): www.powerbreathe.com
  • SpeechVive: www.speechvive.com
  • Voice amplifiers
  • Pacing boards
  • And others

Thank you

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https://www.purdue.edu/hhs/slhs/
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