



# LSVT LOUD<sup>®</sup> Professional Webinar Series

**Title:                   How can technology increase access to LSVT  
LOUD<sup>®</sup> speech treatment for Parkinson's?**

**Presenters:       Angela Halpern, MS, CCC-SLP  
                      Elizabeth Peterson, MA, CCC-SLP**

**Date Presented:    April 18, 2018**

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## How can technology increase access to LSVT LOUD® speech treatment for Parkinson's?

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## Plan for Webinar

Brief Introduction

Logistics

Discussion of how technology, including the LSVT Companion® System and Telepractice, can be utilized to overcome barriers to receiving LSVT LOUD

Address your questions

## Instructor Biographies

### **Angela Halpern, MS, CCC-SLP**

Ms. Halpern is an ASHA certified and LSVT certified speech language clinician. She is the Chief Clinical Officer and a faculty trainer for LSVT Global. She is also a research associate on Dr. Lorraine Ramig's Parkinson voice and speech research team at the National Center for Voice and Speech in Denver, CO. She received her master's degree in the Department of Communication Disorders and Sciences at the University of Pittsburgh. Ms. Halpern has worked extensively in the area of neurogenic disorders with a specialty in Parkinson disease. She has presented at national and international conferences and authored and co-authored publications related to voice and speech in Parkinson disease.

### **Elizabeth Peterson, MA, CCC-SLP**

Ms. Peterson received her master's degree in Speech, Language and Hearing Sciences from the University of Colorado-Boulder. She began working with Dr. Lorraine Ramig's research team while completing her master's thesis. Ms. Peterson is LSVT LOUD certified and primarily delivers LSVT LOUD in the research setting. She has worked as a research associate at the National Center for Voice and Speech-Denver and the University of Texas Health Science Center, San Antonio. Ms. Peterson is currently involved in Dr. Ramig's research investigating the short and long-term impact of LSVT LOUD on neural underpinnings of speech in Parkinson disease.

## Disclosures

All of the LSVT LOUD faculty have both financial and non-financial relationships with LSVT Global.

Non-financial relationships include a preference for the LSVT LOUD as a treatment technique and the LSVT Companion as equipment used in conjunction with LSVT LOUD.

Financial Relationships include:

Ms. Peterson and Ms. Halpern are employees of and receive lecture honorarium and travel reimbursement from LSVT Global, Inc.

## Information to Self-Report Activity for Speech-Language Pathology Professionals

- This LSVT Global webinar is **NOT** ASHA or state registered for CEUs, but **it may be used for self-reported CEU credit** as non-registered CEUs. That is, the credit can count towards your CE maintenance progress if you choose to self-report your activity.
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- For more information on including non-ASHA registered CEUs for certification maintenance, visit ASHA's website: <http://www.asha.org/Certification/Certification-Maintenance-Frequently-Asked-Questions--Earning-Professional-Development-Hours/#earnASHA>
- Completion of the webinar **will not be** reported to the ASHA CE registry by us and cannot be added to the ASHA CE registry by you. It will be your responsibility to retain documentation of completion just as you do with any other non-registered CE activity.
- Licensing requirements for CEUs differ by state. Check with your state licensing board to determine if your state accepts non-ASHA registered CEU activities.

**Learning Objectives**

Upon conclusion of this webinar, participants will be able to:

1. Discuss the importance of maintaining intensity of treatment in LSVT LOUD
2. Describe how the LSVT Companion System can be utilized to increase accessibility to treatment
3. Explain how LSVT LOUD can be delivered via telepractice: LSVT eLOUD

**Video Example:**

59 year old female  
2.5 years post-diagnosis  
On-meds pre and post video

Pre/post LSVT LOUD  
(Lee Silverman Voice Treatment)  
Intensive physical exercise of speech mechanism



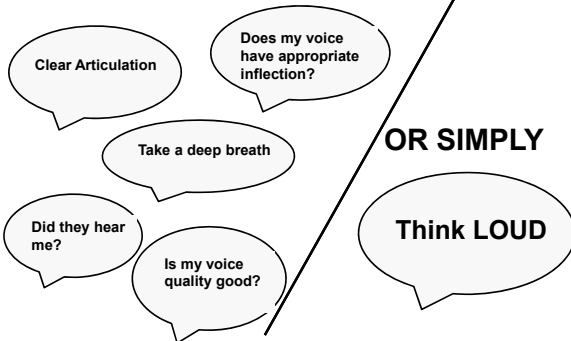
**LSVT LOUD Directly Targets Speech Characteristics of PD**

- Reduced loudness
- Hoarse voice quality
- Monotone
- Imprecise articulation
- Vocal tremor

(Darley et al, 1969a; 1969b; 1975; Logemann et al, 1978)

Some patients report volume, hoarse voice or monotone as the first PD symptom  
(Aronson, 1990)

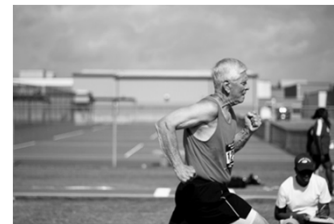
**Target: Single Focus on LOUD**



**MODE of LSVT LOUD**

Intensive High Effort  
LSVT LOUD – 4 times a week for 4 weeks, one hour individual sessions  
Intensive dosage across and within sessions

- High effort
- Repetitions
- Force/resistance
- Accuracy
- Fatigue



What do data say?  
Intensive practice is important for maximal plasticity  
(Kliem & Jones, 2008)

## CALIBRATION

- **MISMATCH** between on-line perception of output and how others perceive it

“I’m not too soft”  
 “I can’t speak like this,  
 I am shouting!!”

Fox et al, 2002; Sapir et al, 2011

## Why is This Important to You?

It is important to learn through LSVT LOUD to directly address this sensory mismatch.

You may think your voice is loud enough, but others may not be able to hear you, and they won’t be this obvious 😊.



## LSVT LOUD Treatment Session Summary

### Daily Exercises

1. Maximum Duration of Sustained Vowel Phonation (Long Ahs) – 15+ reps
2. Maximum Fundamental Frequency Range (High/Low Ahs) – 15 reps each
3. Maximum Functional Speech Loudness (Functional Phrases) – 5 reps of 10 phrases

### Hierarchy Exercises

Structured reading – multiple reps, 20+ min.  
 Off the cuff – bridge the gap to conversation  
 Build complexity across 4 weeks of treatment towards your long-term communication goal

### Homework

Includes all daily exercises and hierarchy exercises  
 Assigned all 30 days

### Carryover Exercises

Use loud voice in real life situations outside of the treatment room  
 Assigned all 30 days

LSVT LOUD – 25+ years of  
**EFFICACY DATA**  
**Established importance of**  
**LSVT LOUD FOUR TIMES A WEEK**  
**FOR FOUR WEEKS**  
**(GOLD STANDARD)**

Intensity of treatment  
 is essential but there are real  
 world challenges

## Challenges to Intensive Treatment

- Distance from an LSVT LOUD Certified Clinician
- Issues with mobility
- Limited transportation options
- Expense of travel
- Fatigue/Effort that can accompany getting out of house for appointments

**How Can We Make**  
**LSVT LOUD More**  
**Accessible?**

**Technology as a Means to Increase Treatment Accessibility for Intensive Treatment.**



**LSVT eLOUD**  
Telepractice

**LSVT Companion**  
Funded by: NIH-NIDCD & Michael J. Fox Foundation

[www.LSVTGlobal.com](http://www.LSVTGlobal.com)

**LSVT Companion® Client Edition**



Funded by: NIH-NIDCD & Michael J. Fox Foundation

**LSVT Companion Key Features**

- Provides real-time audio and visual feedback based on goals set by the clinician
- Automatically documents calibrated sound pressure level (SPL), frequency and duration for treatment and/or homework practice
- Spreadsheet with data can be shared with your therapist

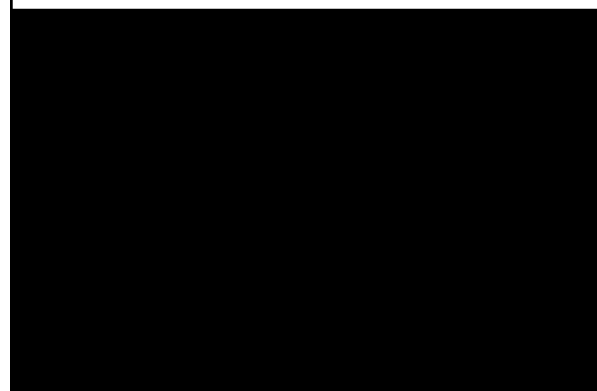


**LSVT Companion Key Features**

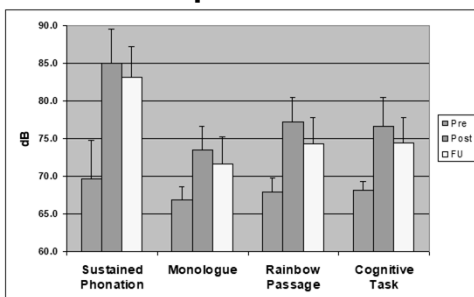
- FDA-cleared medical device
- Must be used under care of an LSVT LOUD Certified Clinician (prescription)
- Text and conversation practice can be personalized by your clinician
- Available in English and German



**Video: LSVT Companion, Client Edition**



## LSVT Companion Research



Changes consistent with those reported in previously published data Halpern et al., 2012, AJSLP

### Potential uses of the LSVT Companion System to Increase Accessibility

- Independent treatment sessions at home, for a portion of the sessions
- Homework practice during LSVT LOUD
- Continued practice after the end of LSVT LOUD therapy

## How to purchase the LSVT Companion System

- Purchase online at: [www.lsvtglobal.com/products/lsvt-companion-home-edition](http://www.lsvtglobal.com/products/lsvt-companion-home-edition)
  - Clinician name will need to be verified prior to purchase
- Call or e-mail LSVT Global: 1-888-438-5788 or [info@lsvtglobal.com](mailto:info@lsvtglobal.com)
- Ask your clinician if he/she has a “loaner” LSVT Companion System

## Reimbursement for LSVT Companion, Client Edition

- Private Health Insurance
  - Explore options within health plan
  - Clinicians have had success (e.g., Cigna)
- Veterans Administration
  - Good success in select facilities for providing the Client editions
- Vocational Resources
  - Success with getting funding for client

## Resources

- LSVT Companion User Guide
- [lsvtc@lsvtglobal.com](mailto:lsvtc@lsvtglobal.com) technical support
- LSVT Companion Video Tutorials (YouTube: Search LSVT Companion, Client Edition)
- Ask the Expert [info@lsvtglobal.com](mailto:info@lsvtglobal.com)
- Review webinars on demand

## Telepractice delivery of LSVT LOUD:

## LSVT eLOUD

## What is LSVT eLOUD?

- LSVT LOUD delivered at a distance using telecommunications technology (e.g. webcam, internet connection, web-conferencing platform)
- Identical to in-person treatment in terms of target (vocal loudness), mode (high intensity and effort) and calibration (rescaling of vocal output)

## ASHA Telepractice Statement

The use of telepractice does not remove any existing responsibilities in delivering services, including adherence to the Code of Ethics, Scope of Practice, state and federal laws (e.g., licensure, HIPAA, etc.), and ASHA policy documents on professional practices.

Therefore, the quality of services delivered via telepractice must be consistent with the quality of services delivered face-to-face.

Maximum  
duration "ah"

## Research supporting LSVT LOUD in Telepractice

- Theodoros et al., 2006
- Tindall et al., 2008
- Howell et al., 2009
- Constantinescu et al., 2010
- Constantinescu et al., 2011
- Theodoros & Ramig, 2011
- Theodoros et al., 2016



## LSVT LOUD Typical Outcomes

(change in dB SPL from pre to post)

	Number of participants	Sustained vowel	Reading	Conversation
<b>Ramig et al., 1995</b> Live face-to-face efficacy study	26	14.1	9.1	4.7
<b>Ramig et al., 2001</b> Live face-to-face efficacy study	14	13.3	6.6	5.5
<b>Theodoros et al., 2006</b> Telehealth delivery with web-cam and eREHAB box feasibility study	10	10.8	7.5	5.5
<b>Halpern et al., 2012</b> LSVTC outcome data: 9 sessions live; 7 with LSVT Companion at home	16	16.0	9.0	7.0
<b>Theodoros et al., 2016</b> Face-to-Face	16	10.5	8.8	9.2
Metropolitan Online	15	9.6	7.5	8.0
Non-Metropolitan Online	15	7.5	6.2	6.2

## Treatment Materials Needed for LSVT eLOUD

- Internet connection, webcam, speakers
- Tape measure for microphone distance
- Typing stand to display readings
- Printer to print treatment and homework material
- Quiet room
- Comfortable chair directly facing screen
- Safe position for water cup!

### Considerations for LSVT eLOUD

- Comfort with technology (do you have IT access – Geek squad, tech savvy friend or family member?)
- Discuss with clinician ratio of in-person to telepractice sessions
  - e.g. eval in-person? All sessions via telepractice?
  - Different regulations per state
  - Licensed in my state?
- Test session prior to first live session or assessment (no adjustments after assessment!)

### Questions to Ask LSVT eLOUD Clinician

- How many clients have you seen face-to-face? (minimum of 3)
- What telepractice platform do you use?
- Do you have a HIPAA BAA (business associate agreement) with the platform to ensure protection of my personal data?
  - e.g. Skype and FaceTime are NOT HIPAA compliant

### Reimbursement for Telepractice

- Private Health Insurance
  - Some states have passed laws mandating coverage of telepractice
  - Check your policy!
  - Check ASHA State-by-State for more information
    - <https://www.asha.org/Advocacy/state/>
- Medicare
  - SLPs not covered providers for telepractice coverage
  - Medicare beneficiaries may not pay for telepractice privately
- Medicaid
  - Determined on a state level (check ASHA State-by-State)

[https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589934956&section=Key\\_Issues](https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589934956&section=Key_Issues)

### How to Find an LSVT eLOUD Clinician

- Go to [www.lsvtglobal.com](http://www.lsvtglobal.com)
- Click on “Find a Clinician”
- Select “LSVT eLOUD Speech Language Clinicians”
- Enter search criteria
- Click on “Search” to display clinicians certified in your state

### Summary

Intensity of treatment is essential to maintain treatment fidelity but there are real world challenges such as distance to a clinician, time, mobility issues or expense of travel.

Technology may be utilized to make intensive treatment more feasible.

The LSVT Companion may be used to supplement a portion of treatment sessions and/or homework practice and maintenance in a client's home or office.

LSVT eLOUD makes it possible to receive live treatment from a clinician in real-time without the expense, time, or mobility required to travel.

### Further Learning Opportunities

- Public Webinars
- NEW! LOUD for LIFE® and BIG for LIFE®
- LSVT LOUD Homework Helper DVD  
(streaming option available)



## Upcoming Learning Opportunities

### May Public Webinar:

- Application of LSVT LOUD® to Pediatric Motor Speech Disorders
- Wednesday, May 16, 2018 2-3 PM EDT

### June Public Webinar:

- Introduction to LSVT LOUD® and LSVT BIG®: Speech, physical and occupational therapies for Parkinson's
- Wednesday, June 20, 2018 2-3 PM EDT

## How to ask questions LIVE:

1. Type in the question box on your control panel
2. Raise your hand (click on the hand icon in your control panel)
  - Your name will be called out
  - Your mic will be unmuted, then ask your question out loud
3. Email [info@lsvtglobal.com](mailto:info@lsvtglobal.com) if you think of questions later

# Thank you!



[info@lsvtglobal.com](mailto:info@lsvtglobal.com)  
[www.lsvtglobal.com](http://www.lsvtglobal.com)

Please complete the survey that will launch when you close the program.  
It will take five minutes or less to complete!