



# LSVT Global® Public Webinar Series

**Title: The Integral Role of Occupational Therapy in a Parkinson-Specific Rehabilitation Approach:  
LSVT BIG®**

**Presenters: Erica Vitek, MOT, OTR, BCB-PMD, PRPC  
Bernadette “Bernie” Kosir, OTR/L, CAPS**

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## The Integral Role of Occupational Therapy in a Parkinson-Specific Rehabilitation Approach: LSVT BIG®



**LSVT GLOBAL** Innovation in Science. Integrity in Practice.

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## Presented by....

**Erica Vitek, MOT, OTR, BCB-PMD, PRPC**  
 LSVT BIG Expert Clinician  
 LSVT BIG Training and Certification Faculty,  
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 LSVT BIG Expert Clinician  
 LSVT BIG Training and Certification Faculty,  
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## Instructor Biographies

**Erica Vitek MOT, OTR, BCB-PMD, PRPC**  
 Ms. Vitek has been certified in LSVT BIG since 2009 and is an ATTP graduate. She is Board Certified in Biofeedback for Pelvic Muscle Dysfunction, a Board-Certified Pelvic Rehabilitation Practitioner, and Herman & Wallace Pelvic Rehabilitation Institute faculty authoring Neuro conditions and pelvic floor rehab. She presents and authors articles for the Wisconsin Parkinson Association. She is employed by Aurora Sinai Medical Center in Milwaukee, WI, leading LSVT programing, including LSVT BIG graduate exercise classes.

**Bernadette Kosir OTR/L, CAPS**  
 Ms. Kosir has over 30 years of OT experience, specializing in home health clinical leadership, quality process development, and innovative clinical education. Ms. Kosir has been LSVT BIG Certified since 2008. She is a certified trainer in Integrated Care Management for coordinated care of patients with chronic diseases including Parkinson disease, and is an NAHB Certified Aging in Place Specialist.

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## Disclosures

- All of the LSVT BIG faculty have both financial and non-financial relationships with LSVT Global.
- Non-financial relationships include a preference for the LSVT BIG as a treatment technique.
- Financial Relationships include: Ms. Vitek and Ms. Kosir receive consulting fees, lecture honorarium and travel reimbursement from LSVT Global, Inc.

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## Plan for Webinar

- Purpose
- Presentation of Content
- Handouts
- Logistics
  - Microphones muted by host
- CEU information
- Survey

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## Information to Report CE Activity

- This LSVT Global webinar is NOT ASHA or state registered for CEUs for speech, physical and occupational therapy professionals, but it may be used for self-reported CEU credit as a non-registered/non-preapproved CEU activity.
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- Attendance for the full hour is required to earn a certificate.



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2. If you'd like to ask your question out loud, please type in your chat box that you'd like your microphone unmuted to ask a question. (Be sure it is unmuted on your device too.)
3. Email [info@lsvtglobal.com](mailto:info@lsvtglobal.com) if you think of questions later!



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## Learning Objectives

Differentiate	Differentiate LSVT BIG from historic occupational therapy approaches for Parkinson disease (PD)
Outline	Outline the functional basis for LSVT BIG and its fit into AOTA's Occupational Therapy Practice Framework: Domain and Process
Define	Define strategies for improving independence with ADL performance and reducing fall risk for people with PD
Explore	Explore the use of LSVT BIG for improving fine motor control in people with PD

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## Our Stories



**Erica Vitek**



**Bernadette Kosir**

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## 7 Characteristics of Historical Therapy Approaches

1. Low intensity
  - Frequency and number of sessions
  - Intensity and effort within the session
2. Compensatory focused
  - Training use of adaptive devices and techniques to compensate for loss of function
3. Late stage referrals
  - Referrals to therapy came later in the disease process and because of falls, inability to perform ADLs and/or severe changes in voice



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## 7 Characteristics of Historical Therapy Approaches

4. Paucity of research
  - Needed to drive treatment choices
  - Or loosely based upon "principles" found in research
5. "Piecemeal approach"
  - Targeting multiple impairments unsystematically
6. No treatment of PD sensory impairments
7. Little expectation for lasting improvement



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## How has therapy for people with PD evolved?

- Basic science evidence now proves the value of exercise for primary symptom management in PD (classically drugs, surgery, today...)
- Research is showing that exercise can: improve brain functioning and may slow disease progression (neural plasticity)
- Key principles of exercise that drive activity-dependent neural plasticity have been identified

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**Goal in Therapy: Incorporate Multiple Principles that Drive Neuroplasticity**

**Intensity matters**  
Intensive practice is important for maximal plasticity

**Complexity matters**  
Complex movements or environmental enrichment have been shown to promote greater structural plasticity

**Repetition Matters**  
Induction of plasticity requires sufficient repetition (Kliem et al, 2004)

**Salience matters**  
Practicing rewarding tasks (success/emotionally salient) activates basal ganglia circuitry

**Timing matters**  
Injury creates fertile field for plasticity - need behavior to make it happen

**Specificity matters**  
Train the deficits (target hypokinesia in PD)

(Alexander et al., 1990; Fox et al., 2002; Graybiel 1998; Kliem et al., 2003; Kleim and Jones, 2005; Jones et al. 1999; Saint-Cyr JA, 2003; Tillerson et al., 2002; Vergara-Aragon et al., 2003; Black et al. 1990; Comery 1995; Fisher et al., 2004; Kleim et al., 2001, 1996; Perez et al. 2004; Pisani et al., 2005; Plautz et al., 2000 )

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## Our work: LSVT BIG

Intensive amplitude-based exercise program for the limb motor system!  
Re-education of the sensorimotor system.

- Provided by OTs and PTs
- Parkinson disease specific
- Neuroplasticity-based
- Research-based

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# LSVT BIG® and Occupational Therapy

## A natural fit...

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*“Occupational therapy is the only profession that helps people across the lifespan to do the things they want and need to do through the therapeutic use of daily activities (occupations).”*

<https://www.aota.org/Conference-Events/OTMonth/what-is-OT.aspx>

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How does PD negatively impact ability to do daily activities?

- \_\_\_\_\_ Tremor
- \_\_\_\_\_ Bradykinesia
- \_\_\_\_\_ Hypokinesia
- \_\_\_\_\_ Impaired kinesthetic awareness
- \_\_\_\_\_ Limb kinetic apraxia
- \_\_\_\_\_ Difficulty sustaining repeated movement
- \_\_\_\_\_ Difficulty with initiation of movement (GO)
- \_\_\_\_\_ Difficulty stopping movement (NO GO)
- \_\_\_\_\_ Dyskinesias

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How do we address these issues with LSVT BIG?

“Think BIG!”

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## What are the fundamentals of LSVT BIG?

**TARGET:** Amplitude-single target

**MODE:** Intensive and High Effort

- Four days week/four weeks
- Individual one hour sessions
- Daily homework and carryover exercises
- Establish life-long habit of practice

**CALIBRATION:** Goal of Generalization

- Sensory
- Internal cueing
- Neuropsychological changes

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## LSVT BIG

### Goal for Patients

Patients use their bigger movements  
“automatically”  
in everyday living –  
and there is  
long-term carryover  
of increased amplitude use!

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## LSVT BIG Treatment Session

<p><b>Maximal Daily Exercises</b></p> <ol style="list-style-type: none"> <li>1. Floor to Ceiling – 8 reps</li> <li>2. Side to Side – 8 each side</li> <li>3. Forward step – 8 each side</li> <li>4. Sideways step – 8 each side</li> <li>5. Backward step – 8 each side</li> <li>6. Forward Rock and Reach – 10 each side (working up to 20)</li> <li>7. Sideways Rock and Reach – 10 each side (working up to 20)</li> </ol>	<p><b>Functional Component Tasks</b></p> <p>5 EVERYDAY TASKS– 5 reps each</p> <p><b>For example:</b></p> <ul style="list-style-type: none"> <li>-Sit-to-Stand</li> <li>-Pulling pants up</li> <li>-Stepping into shower</li> </ul> <p><b>Hierarchy Tasks</b></p> <p>Patient identified complex tasks:</p> <ul style="list-style-type: none"> <li>Dressing</li> <li>Meal Preparation</li> <li>Toileting</li> </ul> <p>Build complexity across 4 weeks of treatment towards long-term goal</p> <p><b>Walking BIG</b></p> <p>Distance/time may vary</p>
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## LSVT BIG Maximal Daily Exercises and Live Demo

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## Purposes Of Maximal Daily Exercises

Drive	Drive motor output to override bradykinesia and hypokinesia to produce normal movement during ADLs
Learn	Learn how it feels to have the right amount of effort for these normal movements (kinesthetic awareness)
Improve	Improve gross and fine motor coordination, balance, strength, flexibility, functional endurance

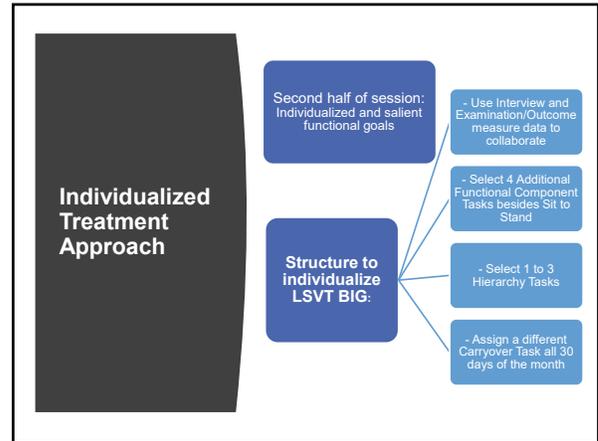
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## How can we connect these exercises to function to make it meaningful for the person with Parkinson disease?

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## Pre/Post Bed Mobility Video

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*"Achieving health, well-being, and participation in life through engagement in occupation is the overarching statement that describes the domain and process of occupational therapy in its fullest sense."*

(OTA's Occupational Therapy Practice Framework: Domain and Process, 3rd Edition, 2014)

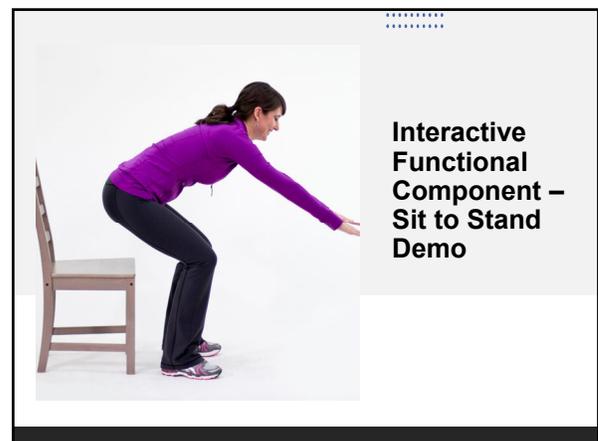
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- ### ADL/IADL Specific Functional Component Task Examples
- Button
  - Pull zipper up/down
  - Pull pants up/down
  - Put leg into pants or arm into sleeve
  - Brush teeth back and forth
  - Open fridge or cupboard or drawer
  - Open bottle
  - Cover/uncover sheets
  - Step into shower
  - Sit to stand
  - Buckle seat belt
  - Wipe countertop
  - Turn on/off light
  - Dry back or legs off
  - Load/unload washer
  - Pick up things from floor

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### ADL/IADL Specific Hierarchy Examples

- Applying make-up
- Shaving or brushing teeth (whole process)
- Fixing one's hair
- Vacuuming
- Sweeping
- Making the bed
- Doing laundry (whole or part of task)
- Dressing (even just upper or lower body)
- Toileting
- Showering/Bathing
- Preparing a meal
- Cleaning-up after meal
- Eating a meal
- Shopping
- Writing

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### Bob's Jacket Video

<https://blog.lsvtglobal.com/insights-about-movement-from-a-person-with-parkinsons/>

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-  Functional mobility as an ADL
-  BIG Walking part of every session
-  Goal is to walk with more normal amplitude (posture, step length, arm swing) in daily life EVERYWHERE (at home, work, and play)
-  Short and longer distances
-  Varied environments and functional purposes/goals

### Walking BIG

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### LSVT BIG Walk Pre/Post Video

<https://blog.lsvtglobal.com/lsvt-big-therapy-for-people-with-parkinson-disease/>

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### What about Fine Motor Tasks?

- Even small movements are **TOO SMALL** in people with PD!  
- *Examples: writing, buttoning, teeth brushing, stirring*
- Therapy Goal: Scale up to normal amplitude to perform that task more independently, safely and/or efficiently

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### Buttoning Video

<https://blog.lsvtglobal.com/shirt-buttoning-lsvt-big/>

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### Generalized Changes Can Occur

1) Walking Duration	1) Walking Duration
2) Balance	2) Balance
3) Fear of falling	3) Fear of Falling
4) getting out of soft chairs	4) Getting Out of Soft Chair
5) Putting pants on	5) Putting Pants On
6) shoes on and off	6) Shoes on and off
7) Standing for long periods	7) Standing For Long Periods
8) standing in shower	8) Standing In Shower
9) handwriting clarity	9) Handwriting Clarity
10) preparing meals on my own	10) Preparing Meals on my own

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### Cued Changes Can Occur

PRE	POST
1) 1600	1) BALANCE
2) 0 for	2) POSTURE
3) 9/17/2000	3) TREMOR
4) 1800	4) URGENCY
	5) EUSTACHEA
	6) STABBLE
	7) PULVER
	8) CAB
	9) COLCH
	10) 18/15/20/20/20

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“Here are some activities that I had avoided but which are now part of my routine again: getting up from a low couch, getting into and out of my car (which is low to the ground), putting bills into my wallet, retrieving my cell phone from a pants pocket and putting it back, properly donning a sports jacket, buttoning a shirt.  
**All in four weeks!**  
 - Ralph F.

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### Summary

- LSVT BIG differs from historical treatment approaches and incorporates key principles that drive neuroplasticity
- LSVT BIG increases independence, speed, quality and/or safety with ADLs and IADLs including fine motor tasks
- Occupational Therapists are key drivers for LSVT BIG delivery
- This is just a “snap-shot” of LSVT BIG – much more to learn!

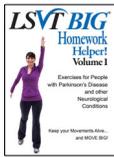
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### How to get started with LSVT BIG and LSVT LOUD

- Ask your doctor for a referral and a prescription for a speech or physical/occupational therapy **evaluation** and **treatment**
- Visit [www.lsvtglobal.com](http://www.lsvtglobal.com) to find an LSVT LOUD or LSVT BIG Certified Clinician in your area **FIND LSVT CLINICIANS**

**Homework Helper Videos**  
 (DVD, Streaming or Download)

- Helpful for daily practice during/after LSVT BIG
- Standard and Adapted Versions
- Find in Amazon, LSVT Global store
- Or email [info@lsvtglobal.com](mailto:info@lsvtglobal.com) for pricing and purchasing information



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### LSVT BIG Training and Certification Options

Online

- Offered for 1.45 AOTA CEUs (14.5 hours)
- Self-paced, all online, 90 days course access
- Certification and training equivalent to the in-person course
- Use code **SPRING15** for a 15% discount through May 31, 2020

In-person

- 2 day course –locations found at [www.lsvtglobal.com](http://www.lsvtglobal.com)
- 12 contact hours/1.2 AOTA CEUs

**Both open to OTs, COTAs, OT students as well as PTs, PTAs, and PT students**

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## How to Ask Questions

- Type in the question in the chat box. If you want to ask your question out loud, request to do so in your chat box.
- Your name will be called out
- Your mic will be unmuted,
- Then you can ask your question out loud
- Make sure your mic is not muted on your device



- Email [info@lsvtglobal.com](mailto:info@lsvtglobal.com) if you think of questions later!

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## Join us for our next webinar!



# Thank you!

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**The Impact and Treatment of Non-Motor Symptoms in LSVT LOUD® and LSVT BIG®**  
May 20, 2020  
2:00 – 3:00 pm EDT

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

<https://blog.lsvtglobal.com/events/category/free-public-webinars/>

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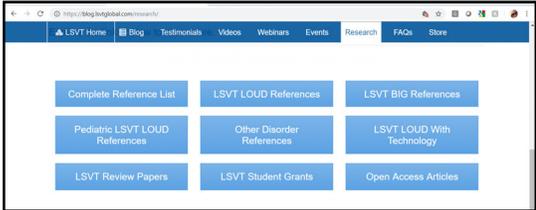
## Opportunities to Learn More

Facebook, Instagram, Twitter, LinkedIn

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## LSVT BIG References

<https://blog.lsvtglobal.com/research/>



Complete Reference List	LSVT LOUD References	LSVT BIG References
Pediatric LSVT LOUD References	Other Disorder References	LSVT LOUD With Technology
LSVT Review Papers	LSVT Student Grants	Open Access Articles

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