



Public Webinar Series

Title: Addressing Difficulties with Swallowing and Activities of Daily Living in Parkinson Disease

**Presenters: Erica Vitek, MOT, OTR, BCB-PMD, PRPC
Heather Hodges, MA, CCC-SLP**

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Disclaimer:

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Contact Us:

Web: www.lsvtglobal.com Email: info@lsvtglobal.com

Phone: 1-888-438-5788 (toll free), 1-520-867-8838 (direct)

Legitimate Therapeutic Options
 To provide symptomatic relief; improve function

Pharmacological (L-dopa) Neurosurgical (DBS-STN)

Voice and Body Exercise

Zigmond et al., 2009

Delivery

- Certified LSVT BIG Physical/Occupational Therapist
 - 1:1 intervention

Time of Practice

- 4 consecutive days per week for 4 weeks
- 16 sessions in one month
- 60 minute sessions
- Daily carryover assignments (30 days/entire month)
- Daily homework (30 days/entire month)

LSVT Programs

Administered in an intensive manner to to **challenge the impaired** system.

Techniques specific to PD-specific deficits!
bradykinesia/hypokinesia
 and
kinesthetic awareness
 (sensory deficit)

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

“I had no idea how small my world had become”

“I can’t move like this, people will think I am crazy!!”

What are the fundamentals of LSVT BIG?

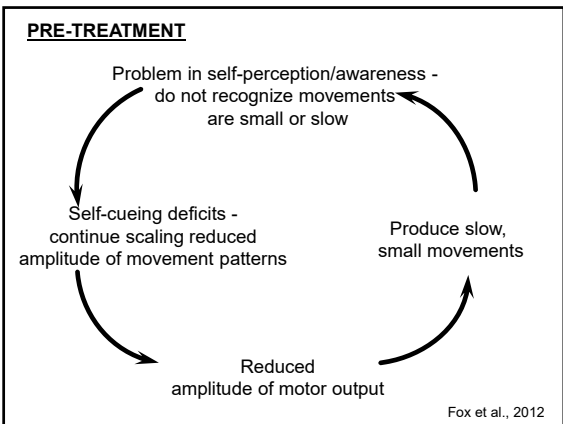
Standardized, research-based, specific protocol

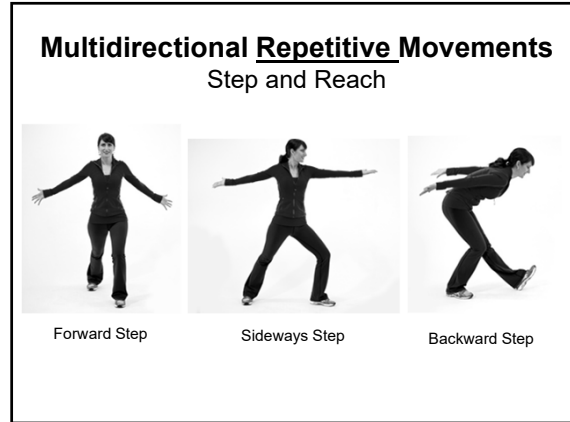
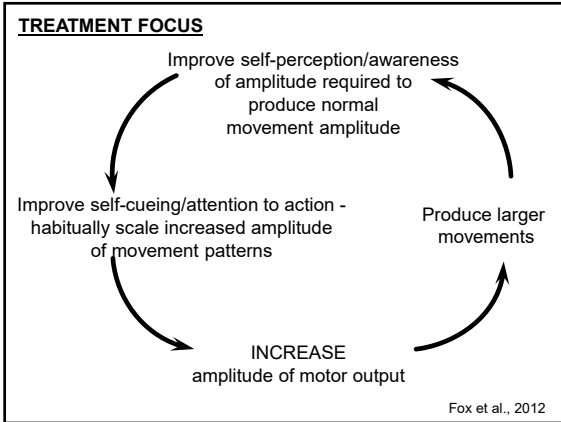
TARGET: Bigness (amplitude)

MODE: Intensive and High Effort

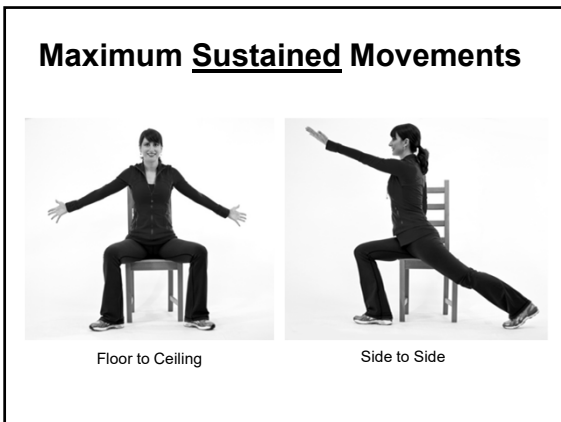
CALIBRATION: Generalization

- Sensory
- Internal cueing
- Neuropsychological changes





- LSVT BIG Treatment Session**
- Maximal Daily Exercises**
1. Floor to Ceiling – 8 reps
 2. Side to Side – 8 each side
 3. Forward step – 8 each side
 4. Sideways step – 8 each side
 5. Backward step – 8 each side
 6. Forward Rock and Reach – 10 each side (working up to 20)
 7. Sideways Rock and Reach – 10 each side (working up to 20)
- Functional Component Tasks**
- 5 EVERYDAY TASKS– 5 reps each
- For example:**
- Sit-to-Stand
 - Pulling pants up
 - Stepping into shower
- Hierarchy Tasks**
- Patient identified complex tasks:
- Dressing
 - Meal Preparation
 - Toileting
- Build complexity across 4 weeks of treatment towards long-term goal
- Walking BIG**
- Distance/time may vary



- PURPOSES OF MAXIMAL DAILY EXERCISES**
- Learn the RIGHT amount of effort to produce normal movement and to override bradykinesia and hypokinesia.
 - Forced Use: Improve or restore function!
 - Drive activity dependent neuroplasticity
 - Improve coordination, balance, strength, flexibility, functional endurance

BUT THEN:

- Transfer use of BIGGER amplitude movements learned through Maximal Daily Exercises into **FUNCTION**.
- Make it meaningful!

How does LSVT BIG address use of bigger movements during ADLs (activities of daily living)?

IT'S ALL ABOUT...

FUNCTION!!

Functional Component Tasks

PICK 5 EVERYDAY TASKS– 5 reps each

- SIMPLE (one step) movement
- Patient-driven
- Personalized to each patient
- Never change
- Practiced repetitively (300 reps/4 weeks!)

LSVT BIG TREATMENT GOAL

People with Parkinson disease will use their bigger movements “automatically” in everyday living – and there will be long-term carryover of increased amplitude use!

Functional Component TASKS

Functional Components – Patient DRIVEN!

- Rolling
- Floor to Stand
- Getting in or out of bed
- Sit to stand
- Sit & reach
- Stand & reach
- Walk & reach
- Walk & turn
- Stand & turn



Sit to stand BIG

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

Carryover assignment

- Daily assignment all 30 days!
- Fits into patient's regular plan for the day after therapy
- Must address sensory problem
- Mandate specific tasks with specific feedback (from others or self)
- Progress the difficulty over 4 weeks – similar to hierarchy or BIG walking (complexity and duration)

Hierarchy Task ONE TO THREE COMPLEX TASKS

- Complex multi-step functional activities
- Emotionally salient/patient-driven.
- Identified through discussion with patient about specific goals

ADL Specific Carryover Assignment Examples

Week One:

- Open pill bottle BIG
- Sit up BIG for 2 minutes when eating

Week 2:

- Put dishes away with BIG reaches
- Button your whole shirt thinking BIG and time yourself!

Week 3:

- Write a short note to someone thinking BIG while writing.
- Stand for 5 -10 minutes using BIG posture when talking to someone known

Week 4

- Use BIG steps and BIG reaches when shopping for groceries.
- Put coat on BIG in public.

ADL/IADL Specific Hierarchy Examples

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

What about Fine Motor Tasks?

- Even small movements are TOO SMALL in people with PD!
– Examples: writing, buttoning, teeth brushing, stirring
- Observe patient's performance and compare to normal.
- Model and shape movement, **DRIVE EFFORT** until patient is scaled up to **NORMAL!**
- "Flick" before initiating the task.

Buttoning Video

1) Walking Duration	1) Walking Duration
2) Balance	2) Balance
3) Fear of falling 3/15/2010	3) Fear of Falling
4) Getting out of seat chair	4) Getting Out of Seat 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

Generalized Amplitude: Uncued writing post-treatment and untrained during therapy

Summary Slide

- LSVT BIG is applicable to all stages of PD and can be customized to each patient's needs and treatment settings
- LSVT BIG increases independence, speed, quality and/or safety with ADLs and IADLs
- Restore Function! Improve Function! Maintain Function!