Parkinson’s Disease &
The Lee Silverman Voice Treatment Program (LSVT)

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Parkinson’s Disease

- Incidence & Prevalence
- Etiology
- Neurological Bases
- Symptoms
Treatment of Parkinson’s Disease

General Treatment Methods

Pharmacological Intervention
- Levadopa (L-Dopa)
- Sinemet

Surgical Options
- Thalamotomy
- Pallidotomy
- Deep Brain Stimulation

Voice Treatment
The Lee Silverman Voice Treatment Program (LSVT)

Introduction to LSVT
- Most efficacious behavioral treatment for speech and voice disorders for individuals with PD
- Long-term improvements in speech and voice functions
- Researched in randomized controlled trials
- Supported by Level I efficacy data

LSVT an option for other disorders
- Multiple sclerosis
- Ataxic dysarthria
- Down syndrome
- Cerebral palsy
LSVT

Development
- Ramig & colleagues
- Increase phonatory effort in individuals with PD
  - Speaking loudness
  - Self-monitoring

Areas of improvement
- Speech and voice
- Additional areas
Administration of LSVT

- Frequent and intense “high effort” sessions conducted by a certified SLP
  - 16 sessions in total
    - Four one hour individual Tx sessions
    - Four consecutive weeks
- Involves explicit instructions
  - Increase phonatory effort
  - Sensory retraining
- Sensorimotor training
Evidence Based Practice: Traditional versus LSVT

- Baumgartner, Sapir, & Ramig (2001)
- Explored the differences between traditional speech Tx for PD and LSVT
- Comparison of Respiratory Effort Treatment (RET) with Phonatory-Respiratory Effort Treatment (LSVT)

Findings
- LSVT group made significant improvements in voice quality
Evidence Based Practice: Sound Pressure Level (SPL)

Ramig, Sapir, Fox, & Countryman (2001)

Investigated changes in SPL in patients with PD treated with LSVT

Findings

- LSVT group showed a measurable increase in SPL post-treatment
- Increase in functional communication and quality of life
Evidence Based Practice: Articulation

Sapir, Spielman, Ramig, Story, & Fox (2007)

Aimed to evaluate the effects of LSVT on vowel articulation in individuals with PD

Results

- Showed empirical support for the improvement of articulatory functions
- Participants exhibited improvements in perceptions vowel ratings and acoustic measurements after completion of LSVT program
Evidence Based Practice: Extended LSVT Program

Spielman, Ramig, Mahler, Halpern, & Gavin (2007)

Examined the effects of an extended version of LSVT, which is referred to as “LSVT-X”

They hypothesized that extending the program may facilitate greater speech and voice improvements in individuals with PD

Results

LSVT program can be extended and altered without compromising clinical efficacy
Clinical Efficacy of LSVT

- Research has demonstrated that LSVT results in improvements in both speech and voice abilities of patients with Parkinson’s disease.
- Documented positive and long-term effects for individuals suffering from PD.
- Enables patients to regain the skills necessary for effective communication.

For more information about LSVT please visit www.lsvt.org.
References


The patient’s perspective…

“My voice is alive again!!!”

Video clip

Before & After LSVT program

» Web link:
  http://www.emedicine.com/ent/fulltopic/topic797.htm