

Beyond Parkinson's disease: the use of standardized speech, physical and occupational therapies in atypical parkinsonism, other movement disorders and aging conditions



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Objective

- 1) Examine how speech, physical and occupational therapists are using standardized, evidence-based, Parkinson disease (PD) specific treatments in atypical parkinsonisms, other movement disorders and aging conditions beyond PD
- 2) Explore therapists' perceived outcomes and challenges in applying these treatments to non-PD disorders.

Background

Standardized, evidence-based speech, physical and occupational therapies (LSVT LOUD and LSVT BIG) have been developed for people with PD. Published evidence on these therapies include three RCTs for speech treatment and two RCTs for physical and occupational therapy (e.g., Ramig et al., 2018; Ebersbach et al., 2010). Although the foundational research on these treatment protocols is in people with PD, principles of neuroplasticity and motor learning built into the protocols may be effective with non-PD conditions (Fox et al., Kleim & Jones). Single-subject and small group studies on these protocols have shown promise for non-PD diagnoses (Sapir et al., 2003; Metcalfe et al., 2019). The goal of this study was to explore use of these treatments in non-PD conditions.

Methods

An online survey was sent to speech, physical and occupational therapists certified in these protocols in six English speaking countries. 248 speech therapists and 541 physical and occupational therapists responded.

Results

75% of speech therapists and 79% of physical and occupational therapists reported using these evidence-based protocols beyond PD. The most common movement disorders and other non-PD conditions treated along with therapists' perceptions of effectiveness are summarized below.

Comments from therapists noted that cognitive impairments were the greatest patient challenge for success, and intensity of dosage was the greatest logistical challenge.

"It has been extremely effective in improving quality of life of patients with movement disorders. I have had so many successful results and even my patients' families are beyond grateful for this program and how it has changed their whole family."

Speech Therapy Protocol – LSVT LOUD®					
Movement Disorders	Usage	Effectiveness*	Other Disorders	Usage	Effectiveness*
Progressive Supranuclear Palsy	30%	75%	Stroke	34%	96%
Multi-system Atrophy	24%	79%	Multiple Sclerosis	19%	89%
Lewy Body Dementia	19%	81%	Vocal Fold Paralysis	20%	92%
Ataxia	14%	88%	Aging voice	17%	91%

Physical & Occupational Therapy Protocol – LSVT BIG®					
Movement Disorders	Usage	Effectiveness*	Other Disorders	Usage	Effectiveness*
Secondary PD	26%	91%	Stroke	40%	86%
Lewy Body Dementia	26%	70%	Aging balance	36%	94%
Progressive Supranuclear Palsy	20%	73%	Multiple Sclerosis	17%	82%
Ataxia	19%	86%	Alzheimer Disease	14%	73%

*Combined ratings of Very Effective and Somewhat Effective

Conclusions

Rehabilitation research is lacking for many movement disorders and other neurological conditions beyond PD. These findings can direct our research efforts and clinical training to help improve communication, function, mobility and quality of life in patients we treat.