



Speech therapy for people with Parkinson's disease

New trial shows that an intensive course of LSVT LOUD is the most effective therapy

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For people with Parkinson's disease, one of the most frustrating symptoms of the disease is the speech disorder known as hypokinetic dysarthria.

Progressive deterioration in volume, intonation, and precision of speech over time affects significantly on the patients' communication with family, friends, and communities. Since the mid-1990s, extensive research has shown the efficacy of the Lee Silverman voice treatment (LSVT LOUD) for people with Parkinson's disease, across a range of outcome measures.^{1,2} The linked randomised trial by Sackley and colleagues,³ comparing LSVT LOUD with the UK's NHS speech and language therapy or no therapy, shows convincingly that LSVT LOUD is the most clinically effective speech treatment for this patient group.

This study is the largest, pragmatic, community based trial undertaken on the topic to date. Through its patient reported primary outcome measure, secondary outcome measures, and comprehensive sensitivity analyses the trial provides strong evidence to support the superiority of LSVT LOUD over conventional NHS speech and language therapy or no therapy. LSVT LOUD was more effective at reducing the voice handicap index score than was no speech and language therapy (−8.0 points (99% confidence interval −13.3 to −2.6; $P < 0.0001$) or NHS speech and language therapy (−9.6 points (99% confidence interval −14.9 to −4.4; $P < 0.0001$)).

Information and evidence supporting LSVT LOUD for the management of speech disorder associated with Parkinson's disease should be disseminated to patients and their families, and to all health professionals involved in their management. For policy makers, the study provides the evidence to support the training and certification of speech and language therapists in the delivery of LSVT LOUD.

The intensive nature of this treatment, which involves one hour per day for four days a week for four weeks, poses access issues for eligible patients and has implications for service delivery. The UK's NHS and other health jurisdictions need to develop innovative service models that enable speech and language therapists to deliver this treatment. The use of telehealth to deliver LSVT LOUD to patients in their homes,⁴ supervision of students to deliver treatment while on clinical placement, and flexible scheduling and modes of delivery for part-time therapists are all possible options that should be explored.

Further research into current NHS speech and language therapies and others designed for the speech disorder associated with Parkinson's disease are also needed to support patients for whom LSVT LOUD is unsuitable due to physical and cognitive decline or personal choice. Until such a time that

other treatments can show a strong evidence base, LSVT LOUD remains the most effective speech treatment for people with Parkinson's disease.

Patient perspective

In their trial, Sackley and colleagues' reported an excellent partnership with patients in the design of the study, using the expertise of individuals and Parkinson's UK to support key aspects of the trial. From a patient perspective, LSVT LOUD can be an arduous treatment, requiring much effort during sessions and regular self-activated voice practice between sessions, commonly supported by family carers. However, levels of adherence to the study were high. The concentrated approach of LSVT LOUD, with weekly clinical sessions combined with practice in between, might have contributed to its success.

Use of patient reported outcome measures could help to explain the high levels of adherence. The study describes how LSVT LOUD improved participants' communication-related quality of life, not just their voice impairment. The key phrase here is that LSVT LOUD is "tailored to individual participant goals", which points to a deliberate intent to actively co-produce outcomes with patients, tapping into the desires of those with dysarthria to regain what matters to them and therefore, hence the determination of participants to engage with the trial.

The reported differences in the performance of LSVT LOUD and NHS speech and language therapy seem stark. However, the results should not imply that NHS speech and language therapy does not work, only that few agreed standards exist for this treatment to enable reliable comparisons to be made. The authors found that generic NHS SLT is poorly defined, content dosage has no accepted standard, and available research is insufficient to inform a standard approach to NHS speech and language therapy. Perhaps the discrepancy also points to a wider mismatch between the benefits of intensive rehabilitative treatments for long term conditions and the resources available to provide them in publicly funded health systems. The challenges posed by Sackley and colleagues' trial include how to ensure that resource limited health systems can implement effective evidence based innovation, and how patient groups can best advocate for this with health system decision makers.

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