Technology-enhanced maintenance practice following LSVT LOUD in children with cerebral palsy and dysarthria.

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Recently, a computer program designed to assist in the delivery of LSVT LOUD has been developed and tested in individuals with Parkinson disease (PD). The computer program, called the LSVT Companion, guides a client through treatment or homework sessions while collecting data on sound pressure level, frequency, and duration, which can be sent to the therapist. Use of such a system with children with cerebral palsy (CP) and dysarthria post LSVT LOUD therapy may be a mechanism to make continued post-treatment practice feasible as well as objectively quantify the amount and quality of that practice. The purpose of this feasibility study was to utilize the LSVT Companion System for practice during a 12 week maintenance phase post LSVT LOUD in 10 children with CP. Data from the 12 week maintenance phase including number of sessions completed with the Companion, SPL, duration and frequency data collected during maximum performance and speech exercises and results of the usability survey will be presented and correlated with changes in acoustic, physiologic and neural imaging data collected on these same children. These findings have the potential to offer a feasible way to maintain and monitor motor practice post-speech treatment in children with CP.