CLINICAL BOTTOM LINE: Preliminary results suggest that computer-administered script training can be useful for some people with chronic aphasia & concomitant cognitive deficits.

Clinical Question: Group Q: Is computer-only therapy for persons with chronic aphasia efficacious?


Design/Method: Descriptive case studies, with pre- and post-treatment measures. Evaluation of feasibility & efficacy of using ‘AphasiaScripts’ in 3 individuals with aphasia & associated cognitive deficits. Participants were assessed before & after 9 wks of a computer script training program. For each participant:
- 3 individualised scripts developed jointly with speech pathologist: recorded on software, practiced at home
- Weekly mtgs for 3/52 with speech pathologist to monitor practice & ax progress
- Baseline & post- treatment scripts were audiotaped, transcribed, compared to target scripts for content, grammatical productivity & rate of production of script related words
- Interview conducted at conclusion of treatment
Outcome measures: WAB, QCL, CADL-2, CETI, exit interview with participant +/- significant other

Participants: 3 PWA & concomitant cog deficits, resulting from single LCVA, at least 6 months post onset, R hand dominant, no history premorbid neurological or psychiatric disorders, completed yr 12, literate in English, adequate hearing & vision. Participant 1: 75 year old female, non-fluent aphasia, 4 yrs post onset ischemic stroke. Participant 2: 50 M, nonfluent aphasia, 4 yrs post onset ischemic stroke. Participant 3: 67M, fluent aphasia 1 yr post onset haemorrhagic stroke.

Experimental Group: nil

Control Group: nil

Results: Great variability in improvements across scripts. Only 1 participant progressed (no. 1) as per WAB AQ. No changes noted for participants no.s 2 & 3 on WAB AQ, although some increase recorded on other measures eg QCL, content and grammatical productivity of scripts.
Factors identified that affected variation in outcomes: amount of practice (times & duration), script complexity- incl types, topic, level of difficulty (length & grammatical complexity), practicality & functionality of scripts, informational content, grammatical complexity, rate.
Qualitative themes identified in exit interview: increased verbal communication, improved communication skills in other modalities & situations, changes in communication noticed by others, increased confidence, satisfaction with computer program.

Comments:
Strengths: Range of outcome measures used. Good discussion on the difficulty of quantifying communicative improvement with grammatical rather than qualitative measures.
Weaknesses: Small sample size (n=3). No explanation re why no. 2 did not have exit interview, inconsistencies in complexity & functionality of scripts developed & measured, use of different screening data re cognitive deficits. Not all outcome measures administered for all 3 participants.
Comments: Short period of time for measuring value of tool- would longer training period provided a different result? Non-specific re practice intensity needed. Variability of script type, topic & level of difficulty contributed to performance variability.

Level of Evidence (NH&MRC): IV

Appraised By: Hunter ACI EBP Group
Clinical Group: Date: 24.09.2011