CLINICAL BOTTOM LINE:
Self-administered computer-only therapy utilising the cued naming module of MossTalk improves performance for trained words regardless of level of intensity. There is no generalisation to untrained words and maintenance of results was not adequately assessed.

Clinical Question [patient/problem, intervention, (comparison), outcome]:
Is computer-only therapy for people with chronic aphasia efficacious?

Citation:

Design/Method: A single participant design with multiple baselines. The cued naming module (two lists of 40 words) from MossTalk Words was used on personal computer provided to subjects for use at home. Participants were randomly assigned to receive either intensive (5days/week) or non-intensive (2 days/week) treatment in the first intervention phase of the study and the alternate treatment intensity in phase 2. Session numbers in total were equal between the two intensity levels. A clinician was present in the first 2 sessions (3 for Participant 3) of phase1 to train independence; then would review, adjust cueing and collect probe data on the two lists every 5 sessions. Western Aphasia Battery (WAB) and Boston Naming Test (BNT) were completed before treatment but not used as an outcome measure. Baseline collected for 100 words prior to treatment.

Participants: n=4 (age range 63-74); time post stroke range from 6 months to 6 years. Inclusion criteria: minimum 6 months post onset, unilateral stroke, no neurological co-morbidities and no concurrent speech and language therapy for the duration of the study.

Experimental Group: Recruited from University speech and language clinics and community stroke groups which reduce the potential for selection bias. No statistical analysis completed regarding characteristics of subjects. Characteristics of participants described qualitatively.

Control Group: No control group.

Results:
Authors defined 4 criteria for significance; visual inspection of the data, greater than 20% in performance from baseline to probe, Tyron’s C statistic p<0.05 and effect size greater than 2. Significance on all 4 criteria constituted strong evidence. Acquisition: 3/4 demonstrated strong evidence for improvement of naming performance for trained words. Maintenance of Therapy gains: 1/4 strong evidence, 3/4 moderate evidence for treatment gains maintained when treatment removed Generalisation: weak evidence for 2 participants that treatment effect generalised to untrained words; 2 participants showed no evidence of generalisation. Treatment intensity: Participant 1, 3 and 4= strong evidence for both intense/ non-intense (i.e. no difference); participant 2= weak evidence

Comments:
Strengths: Qualitative description of participants and level of WAB detail provided. Thorough methodology making it a replicable study. Clearly defined statistical analysis. Incorporated life participation ideas. Critical reflection present and ideas for future research presented.
Weaknesses: No control group. Small sample size with a narrow age band, reducing external validity. No performance measures for any length of time post to investigate maintenance of improvements. Inconsistent input and probing across participants; e.g. two probes for participants 1 and 2, but many for participants 3 and 4 which introduces measurement bias and therefore results for participants 1 and 2 may overestimate significance of change from baseline. Varying word-list lengths across participants and variable support from clinician across participants also weakens the internal validity of the study.

Level of Evidence (NH&MRC): Level IV

Appraised By: Clinical Group: Hunter EBP Adult Acquired Language group 

Date: 12th September 2011