**CLINICAL BOTTOM LINE:** Using script training with mass drills in people with chronic aphasia resulted in significant positive patient-reported changes. It is not clearly indicated whether there is a true causative link between intervention and patient-reported improvements. No formal Language assessment changes.

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


**Design/Method:** Delayed treatment design with baseline, pre-intervention, post intervention and follow up observations. Outcome measure used the Burden of Stroke Scale (BOSS) with subtests communication difficulty (CD), mobility and communication-associated psychological distress subset. 4 separate periods of measurement: at entry, 6 weeks into treatment, post treatment and follow up re-test 6 weeks post. Assessments conducted by Speech Pathologist (independent of treating Speech Pathologist). No family/carers were involved.

**Participants:** 25 recruited with aphasia at least 6 months post stroke. No information on prior treatment was provided with 5 excluded (missed testing), therefore final number = 20.

- **Impairment:** Chronic aphasia, secondary to left hemisphere stroke.
- **Time since stroke:** >6 months. Range 10.6-237.7 months (mean 53.01).
- **Education:** Minimum 10th grade education and literate in English pre-stroke. Range 10-22 years (mean 15.06).
- **Age:** Range 26-78 years (mean 54.8).
- **Aphasia Severity:** WAB AQ 30.5-85.3 (mean 64.57).

All subjects were right hand dominant with no history of premorbid neurologic or psychiatric disorders. Visual acuity at least 20/100 corrected in better eye. Auditory acuity no worse than 30dB at 500, 100 and 2000HZ aided in better ear. No individual or group treatment received during participation in study. All subjects provided written consent.

**Experimental Group:** Intervention- “aphasia scripts”. Using an avatar for natural speech visual therapist. Participant worked with Speech Pathologist to develop 3 scripts over 5 sessions. Each script practiced for 3 weeks over a total of 9 weeks intervention. Participants had to practice scripts daily for 30 minutes at home on laptop. Participants kept paper & pencil log of home practice times (computer program also kept an objective measure of practice). Intervention used computer-based script training program (AphasiaScripts). Pre-treatment: participants and Speech Pathologist developed individualized scripts on a relevant topic. 3 scripts per participant were developed. Script was then typed into the program and recorded by the Speech Pathologist. During 9 weeks of home practice participants met with the Speech Pathologist once a week. Follow-up assessment included in design.

**Control Group:** No
Results: Statistically significant decrease of 6.79 points in the Communication Difficulty score (P = .038) with a statistically significant effect size of .43. Further reduction in Communication Difficulty (6 weeks post) of 3.84 points (not statistically significant)
Overall change in patient reported CD between pre-treatment and follow-up Ax 10.63 (P = .003) with an effect size of .67.
Mobility & Communication Associated Psychological Distress subscales– results not statistically significant

The authors correlated to BDAE ranks.

Comments – Strengths/weaknesses of paper –
Positive patient reported changes. Small sample size that may not be representative of general aphasia population.
No control with only 6 week follow up (? Long enough to account for maintenance). No formal aphasia assessment just comments on BDAE correlations with patient based perspective only. Unsure why the authors chose to look at mobility as a measured change (may be inclusive to the BOSS administration).
Variability in length of time between pre and post treatment testing due to differences in scheduling appointments during script development.
Possibility that there is no causative link between intervention and patient-reported improvements.
? Cost-effectiveness of this type of therapy and how difficult would it be to replicate this mode of therapy in general aphasia rehabilitation?

Level of Evidence (NH&MRC): Level IV

Appraised By: Hunter ACI EBP Group
Clinical Group:  
Date: 29/9/11