

MyWordTrainer: App-based word retraining in semantic variant Primary Progressive Aphasia

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Background and aims: Language skills central to everyday living are significantly impacted in the neurodegenerative condition primary progressive aphasia (PPA). While there are no medical cures, there is evidence that word retrieval problems can be lessened by engaging in word retraining programs. Such programs, however, are not yet easily accessible. To address this, we aimed to convert an existing, naming therapy approach into an app and explore its usability in people with semantic variant PPA (sv-PPA).

Method: A small pilot feasibility study was conducted. The program used by Savage et al (JAD 2014; 40, 309-317) was recoded as an Android app. Two people with sv-PPA were recruited via the Join Dementia Research database. For each participant, the app was used to create two tailored lists of target words. Over a 6-week period, participants used the app to complete 2 x 3-week blocks of word practice, with weekly tests to monitor learning success. After this period, participants and their families were invited to share their experiences of using the app, rate its usefulness and provide suggestions for improvement. A final naming test was administered 5 months after ceasing practice to measure retention.

Results: All features of the original program were successfully translated into the app. Sessions took approximately 30-45 minutes and were completed up to 5 times per week for 6 weeks. Both participants considered the app useful. In particular, positive comments were made with regards to the ability to personalize the word training stimuli through the app. Analysis of naming performance pre- to post-training confirmed significant improvements in word retrieval (McNemar's Test, $p < .001$). While certain words relearned were retained 5 months later, the result was no longer significant.

Conclusions: App-based word retraining appears a feasible option for people with PPA. Future research is needed to test definitively the effectiveness of this treatment.