

Enhancing the provision of Speech and Language Therapy in the Lincolnshire Stroke Service through the provision of software to improve self-management of patients with communication impairments following stroke in the community

Introduction

- There are an increasing number of computer programmes and apps designed to provide therapy to individuals experiencing communication difficulties – for example aphasia or apraxia of speech following stroke.
- Programmes have the advantage over worksheets or other such resources in that they can be highly customisable, store a very large number of stimuli, keep record of progress/scoring automatically – and can often be completed independently. Having both computerised and ‘traditional’ therapies also widens the options available to service users.
- Previously, the Lincolnshire Stroke Service (LSS) made use of various communication therapy apps on iPads or dongles during therapy sessions – but these could not be lent out to patients such that they could continue between visits. The provision was also not at consistent levels across the service area.
- This was identified as a gap in the service. A successful application was made to SQulRe to fund the provision of communication therapy software and hardware specifically for use in self-directed communication therapy for individuals in the community.
- The National Clinical Guidelines for Stroke 2023 advise an increase in the use of computerised therapy where possible, and an increase in therapy intensity (from aiming for 45 minutes to up to three hours). This project aimed to reflect both these themes.

Methods

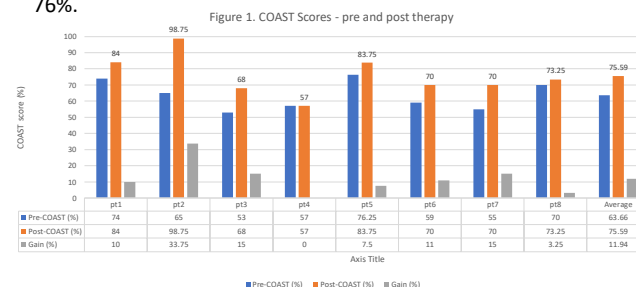
- Project funding covered the provision of:
 - 20 iPads
 - Communication software on each iPad – Tactus 4in1 Language Therapy, Advanced Language Therapy, and Apraxia Therapy.
 - 20 REACT2 PRO licences – a computer programme usable on any device
 - A 0.1 WTE SLT project lead
- These numbers were decided on the basis of a service digital capabilities evaluation completed prior to the project, and a review of available software – we looked at what our therapists were using, how often, and did case reviews of individuals who we thought would have benefited from this were it in place previously.

- The project began loaning software in June 2023.
- A number of outcome measures were selected to monitor the progress of the project. These aimed to capture information on both user experience, and therapy intensity/progress:
 - The Communication Outcome after Stroke (COAST) scale – a self-reported measure of communicative effectiveness
 - A pre- and post- therapy questionnaire covering topics such as familiarity with technology, communication goals, and time spent completing therapy
 - Aphasia Therapy Outcome Measures (TOMs)
 - Staff questionnaires

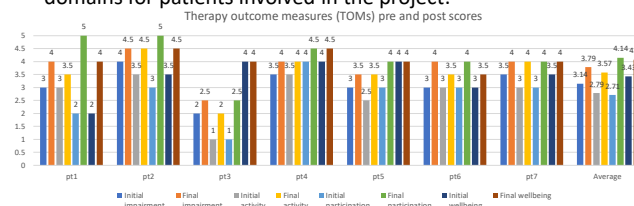
Results

Based on the initial set of returned software:

- A 12% gain in COAST scores (a self-reported measure of communicative effectiveness) pre- and post-therapy, from 64% to 76%.



- Aphasia Therapy Outcome Measures (TOMs) improved across domains for patients involved in the project:



- Feedback from individuals involved in the project and their families/carers has been very positive - individuals self-reporting as generally less confident with technology reported they were still able to learn to use the software:

"It was easy to switch it on, go onto programmes and use the apps. However, didn't have an iPad before so had to get used to it"

"Activities were self-explanatory. Sometimes the App froze and had to start it again."

- Very strong uptake of React2 therapy software. 606 exercise sessions were completed independently, running for almost 218 hours of time spent by patients. Note this is additional to the time spent face-to-face with the stroke service.

Future Plans

- As the project has been successful, our service will continue to make use of loaned therapy software as part of its service model.
- Project funding covered capital expenses such as iPads and non-subscription therapy software – meaning a smaller amount of funding will be required only for upkeep and maintenance. We plan to make an application for this and any subscriptions we retain within our trust.
- We also intend to monitor for any future communication software options which would complement or replace options from our current selection. This may require another project application in future.