

Speech and language therapist to trial innovative new technology for stroke rehabilitation based on patient needs

October 24 2014, by Lucy Prosser

Of the 152, 000 individuals in the UK to survive a stroke each year, approximately 20-30% of them will experience slurred speech (dysarthria). Dysarthria is caused by muscle weakness and is known to impact significantly on psychological well-being and recovery after stroke.

The study, led by speech and language therapist Claire Mitchell at Manchester Royal Infirmary (MRI), will pilot an app called ReaDySpeech that Claire developed with funding from Central Manchester University Hospitals NHS Foundation Trust. The app is designed to provide [patients](#) with a more personalised speech and language [therapy](#), as it creates a tailored programme for each individual. The individual programme will then be adapted based on patient feedback, as they work through the programme, depending on how easy or hard they find tasks.

The app is a step away from the traditional therapy where paper worksheets are used, and can be accessed on any device with an internet or Wi-Fi connection, including tablets, PCs and mobile phones. This allows the patient to have more independence around following their rehabilitation programme.

Claire Mitchell, who is also Clinical Education Lead for Speech and Language Therapy at The University of Manchester, explains the reasons

behind the ReaDySpeech app: "This study has only come about because of patient feedback to me as a clinician. After patients and families asked for alternatives to paper copies of exercises, I decided to look at other solutions. After consultation we decided we could use technology more broadly to support rehabilitation and this is when I first started to develop the app ReaDySpeech.

"Rehabilitation after a [stroke](#) can often be a stressful and frustrating time for patients. I hope that by trialling this app, we have the potential to provide a more personalised therapy plan that will improve their journey to recovery."

By trialling the new technology with a small number of clinicians and patients, Claire aims to collate enough evidence to demonstrate whether the app is acceptable for patients as a form of therapy, and the feasibility of conducting a larger trial of the app therapy. Future research has the potential to reshape how speech therapy services are delivered to provide a better quality of provision with increased levels of support without increasing service costs.

63 year old Alan Moore suffered a serious stroke in 2005 and has since been an active member of the NIHR Clinical Research Network: Stroke speciality. Alan was one of a number of patients to input into the development of the app. Alan explains: "I wish this study and the new system had been available when I was recovering from my stroke.

"As part of my rehabilitation I used paper based resources, which worked well, but I was keen to recover my IT skills which I previously used in my day-to-day life. If this app had been around then, it would have been a perfect opportunity to combine both.

"As part of Claire's research I used the app and found it very user friendly. I was able to follow a course through the exercises at my own speed and progress through them as and when I was ready. I also found it

very motivational because as I went through one stage, I really wanted to get on to the next.

Many people live a long way from a rehabilitation centre and this [app](#) gives them the flexibility to progress in exercises between visits with their therapists, meaning patients have more control over their rehabilitation."

Provided by National Institute for Health Research

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