Innovating for Improvement

Delivering Speech Therapy to Adults who Stammer via Telemedicine

Airedale NHS Foundation Trust

About the project

Project title:

Delivering Speech Therapy to Adults who Stammer via Telemedicine

Lead organisation:

Airedale NHS Foundation Trust

Partner organisation(s):

British Stammering Association

Project lead(s):

Stephanie Burgess and Jody Cowgill

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Part 1: Abstract

The British Stammering Association approached Steph with a problem that a lot of their members were facing; they were over the age of 18 and had a stammer and no access to NHS Speech therapy.

Steph had experience dealing with adults who stammer via telemedicine as part of her role with Airedale NHS Foundation Trust. Steph and the BSA wanted to be able to offer patients the option of accessing therapy, regardless of whether their local NHS SLT Department had a specialist in adult stammering or not. She wanted to do this using free and easy to access systems, offering speech therapy sessions over the internet.

The project has 64 patients signed up to it, with 29 having completed a full episode of care.

The project was not intended to trial replacing face-to-face therapy with telemedicine, but complement it where there was no other provision for the patient.

The project has been very successful, both in the preliminary results from the patient evaluation, and also has been successful in national and peer awards.

There have been obstacles needed to be overcome, mainly around the technology used in conducting the therapy sessions. Although we now have a reliable, intuitive and free to access system which we use, the long-term sustainability of it as a scalable system is doubtful given the lack of data security assurances available. However, within the confines of the project, the technology has been very successful.

The project has shown to have had a life-changing impact of some of the patients, documented within this report.

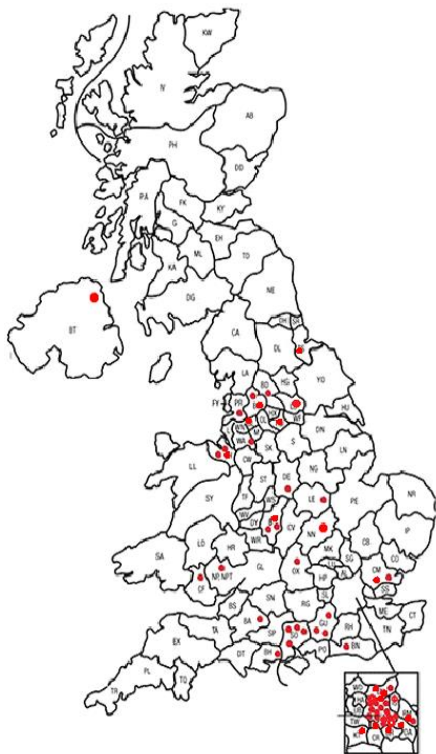
Unfortunately the project has not become business as usual and the service ceased on the 31st March 2018. The Trust is still looking at ways in which it can be funded long-term and the project team has ensured it can be reinstated when needed.

Part 2: Progress and outcomes

The Airedale Stammering Project aimed to offer speech therapy to adults who stammer, but were not able to locally access therapy. The therapy was delivered by free-to-use web-based teleconferencing sites. We were essentially breaking down the ‘postcode lottery’ which the 1% of adults who stammer face when trying to find access to the very specialist, under-resourced speech therapists who specialise in adults who stammer.

The intention from the clinical lead in the project; and therapist carrying out the speech therapy, Steph was always to ensure that the technology used was the most patient friendly and easy-to-access we could find.

Below shows the geographical location of all of the patients who self-referred and were deemed to meet our referral criteria. Whilst having a wide national coverage, there was a heavy weighting towards the London and Greater London area.



It is estimated that approximately 1% of the population suffer from a stammer. Of those with a stammer, it is estimated that the ration of male to female is 5:1. As you can see below, nearly 40% of our patients were female.

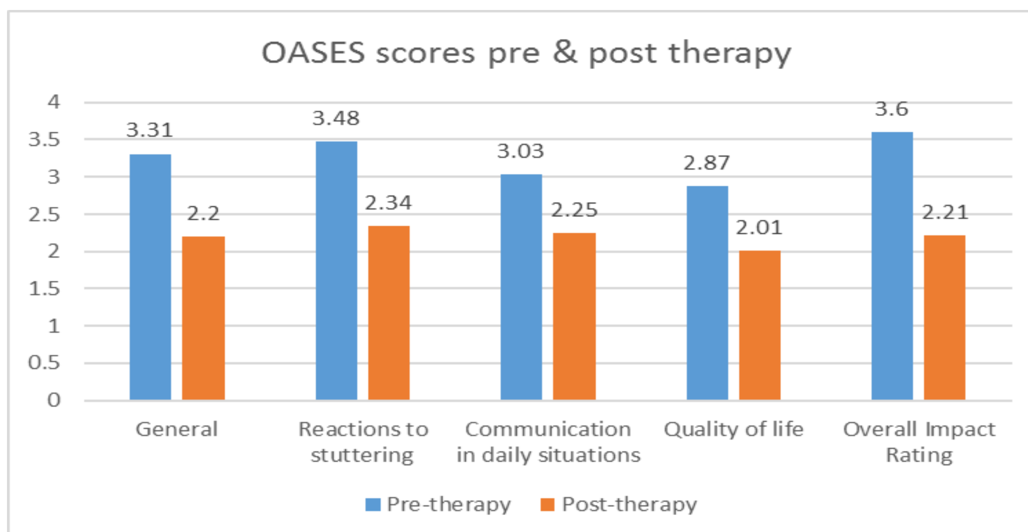
Sex	%
Male	61%
Female	39%

The difference between our project and the national average was something which Steph has been keen to explore. As part of this, Steph has started a peer support group for the female patients and feedback has been positive; *'It's been active in the last few days. F suggested we introduced ourselves, which we did and have also shared experiences of job interviews etc. I shared my recent experience and they were quite supportive.'*

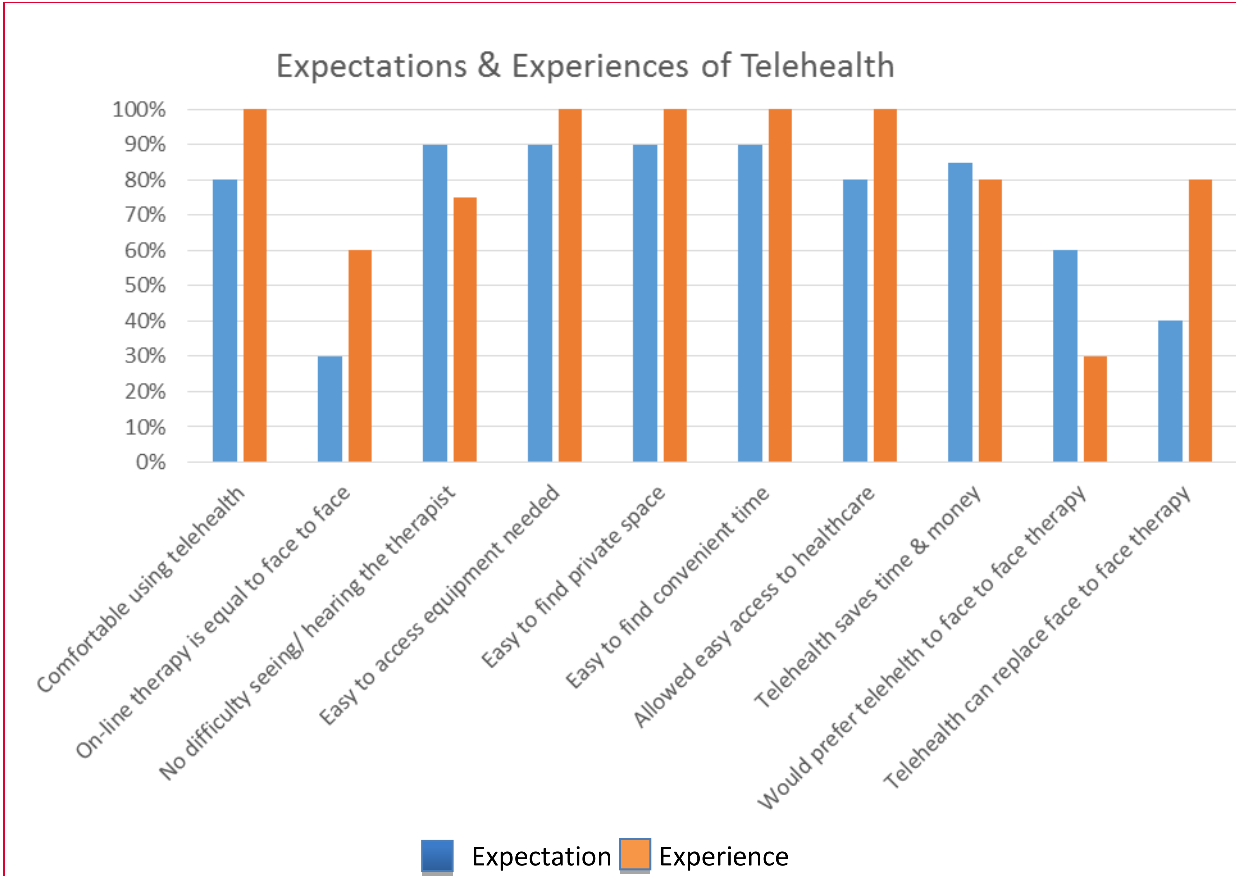
Sarah James, Head of Speech and Language Sciences at Leeds Beckett University have been conducting the evaluation for the project, including pre and post therapy. This involved both a qualitative questionnaire on the patient's stammer and their perception of their stammer, and accessing therapy through telemedicine. This evaluation required all patients to be discharged before being collated and as such, is still in the process of being completed. This has been created both for medical publication and more generalised public publication.

Sarah has been able to provide some early analysis and this is shown below.

The OASES (Overall Assessment of the Speaker's Experience of Stuttering) shows the impact the stammer is having on a patient.



General
3.31 (moderate/severe) 2.2 (mild/ moderate)
Reactions to Stuttering
3.48 (moderate/ severe) 2.34 (moderate)
Communication in Daily Situations
3.03 (moderate/ severe) 2.25 (moderate)
Quality of Life
2.87 (moderate) 2.01 (mild/ moderate)
Overall Impact Rating
3.6 (moderate/ severe) 2.21 (mild/ moderate)



The expectations vs. experience we believe has taken into account the patients who were discharged earlier in the project more than those more recently discharged. We believe that this accounts for the result in the patients "expectation in no difficulty seeing/hearing the therapist being higher than reality".

As part of the clinical evaluation, Steph asked the patient for an outcome rating both at the beginning of the initial therapy session and then also at the end of the therapy sessions. The patients were asked to rate how they felt, 'on a scale of 0 – 10 with your speech (where 0 is the worst you have ever felt about your speech and 10 is the best you can imagine).' The results are shown below:

This shows that every patient felt their speech had improved. The average starting score was 4.6 and finishing score was 7.4, with the average increase being 2.8. The highest

increase in score was 7.5.

Patient L (29) said, *“You can't express yourself so you hide away. I’ve got a lot to offer but I’m nervous of trying new things because of my stammer.”* L felt held back at work and had never taken his young children out on his own in case something happened and he couldn’t ask for help. At his second therapy session, he told us, *“I took the children out; we went to the park and had something to eat, and it was great. I spoke to my colleagues about my stammer, and they said they’d always wanted to ask about it but didn’t feel they could. They’ve been really helpful. I’m going to talk to my manager about it next.”* L has since gone on to contact the CEO of his workplace (a large utilities company) to speak to them about the impact a stammer has on workers and start up a company-wide support group for others who stammer.

Steph believes that because the patients are in familiar, everyday surroundings, they are more able to confidently and seamlessly use the techniques they have been taught in the therapy sessions as they are not in a sterile clinical environment.

“I have felt very comfortable using telehealth and have found it very easy to understand, see, and hear my therapist. I've also found it that it has helped me save travelling money and time and that it has been overall a very positive experience, which I would recommend to anyone. Every single session was building up on top of the previous one, and it was effortless for me to remember what we did during the last sessions -- my therapist would send me very detailed notes of our conversations via email. I find it great to be able to keep track of my progress and also to be able to go back in time to read the things that I was saying and experiencing. Many times I would not even realise the fact that I was not in the same room with my therapist. It was straightforward for me to pay attention to the conversation and very rarely had an issue with the internet connectivity, sound or video.” Patient OASES Response.

LB emailed recently: *“Thanks for everything it has changed my life thank you to you and Steph.*

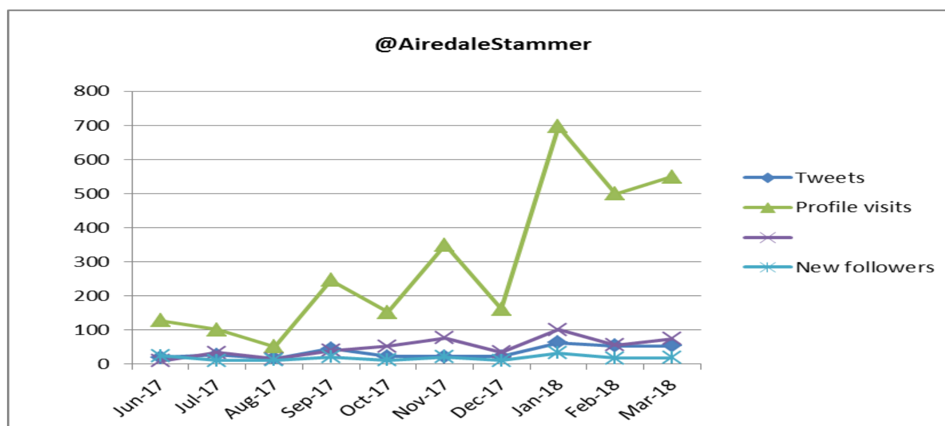
Part 3: Cost impact

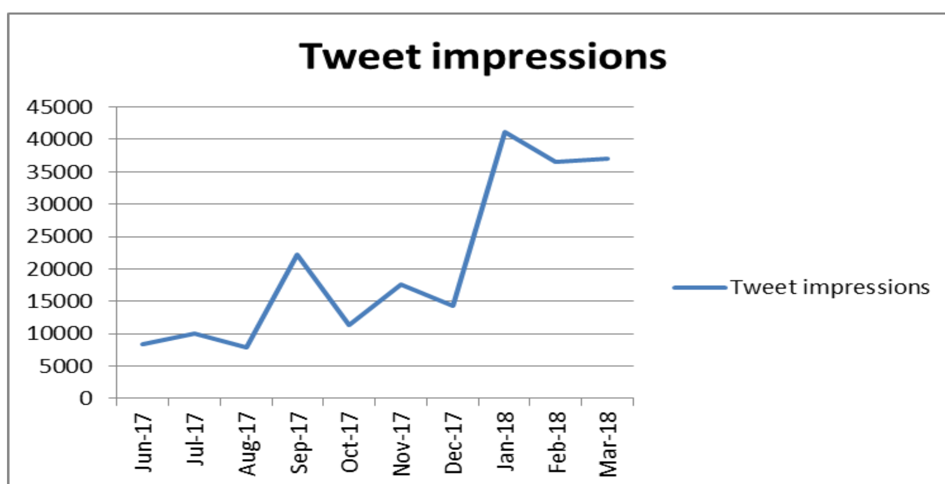
The project has kept within the confines of the originally awarded 73,000. The majority of the funding was used to pay the salary of the speech therapist and project manager. This has enabled us to have 'protected time' to work on the project.

Too often within the NHS, colleagues are expected to do their normal role, as well as taking on improvement projects. This can result in neither the everyday role, nor the improvement project, getting the necessary time or resource and not being as successful as can be.

The protected time offered throughout this project has enabled the team to have maximum flexibility when needing to react to patient feedback on technology, SOP's being created and awards being submitted.

It has also allowed a larger amount of time than would have been ordinarily to be dedicated to social media facilitation. Our blog and twitter account have had good engagement levels:





In order to sustain the project in the long-term, we have explored several funding sources. Although none have come to fruition yet, it is hoped that by keeping monthly meetings with key stakeholders about the future of the project, it will allow us to keep it on the agenda and at the forefront of any discussions regarding the funding future funding streams.

We consider NHS England to be a main source of potential funding. However, currently the infrastructure isn't in place for NHS England to be able to commission the service.

As the project is for patients who cannot access therapy locally, it means we have had no financial impact on other services but have been able to offer patients a much needed service they would not have been able to access otherwise.

"Easy access, no travel costs, time effective." Patient OASES Response.

There are no financial savings to be made from the therapy being offered via telemedicine but the benefits can be seen in the patient experience and convenience in accessing the service in their everyday surroundings.

The average number of sessions per episode of care has been 6 on the telemedicine project. This is the same number as if the therapy was being offered to adults who stammer through traditional face-to-face therapy. There is therefore no additional cost in the average episode of care.

Going forward, our Trust has advised that we would need to use the Trust's preferred telemedicine system in order to ensure that the system interacts with our electronic patient record. The Trust is still in negotiations around the implementation of a new telemedicine system so for the short-medium term we would need to carry on with appear.in but once a new system is in place; there could be some cost associations around licenses and users of any new system.

Other than this, the only costs would be those that are acquired as per traditional methods of face-to-face therapy (e.g. therapist salary and on-costs).

Part 4: Learning from your project

Systems

In the initial planning stages, the Trust preference for a system was quickly identified to be unsuitable for this project as the lead time for implementation was going to be beyond the life of the project. The Trust then suggested Cisco's Webex, which was used throughout the business world, and was considered an industry leader in business to business teleconferencing. It offered good support if there were any issues with connectivity and the Trust had an agreement in place to ensure that firmware updates were well publicised and downtime minimised.

However, it was soon apparent this system was not very intuitive for those patients who were not IT literate or for use in 1-on-1 sessions.

We implemented a text message evaluation service, requesting patients to: 'Rate the process of accessing therapy through telemedicine including general communication, ease of use and quality of software. Please do not focus on the therapy session.' 1 Excellent, 2 Good, 3 Average, 4 Poor, 5 Very Poor.

Through ongoing monitoring of the responses to the above question, we were confident that the patients weren't as happy with the sessions as they could be, and so we decided to investigate different systems we could use to conduct the sessions. Steph was also aware of the issues with the system, both with not being able to access the therapy, and having connectivity issues whilst undertaking the sessions. Steph estimated that over 50% of the sessions she conducted up until the end of June were negatively affected by the system. *"All in all, it was very good, though sometimes the video system and hearing crashed."* Patient OASES Response.

As part of a conversation we had with our lead at Haelo, the website 'appear.in' was mentioned as an up and coming teleconferencing system. Our project manager did some due diligence into the system and it looked to be a good fit for the project. We tried to get sign off from the Trust I.T department. Unfortunately they were unable to offer any input into the system, or offer an alternative to use other than WebEx.

The team therefore took the decision to progress with appear.in but to get consent from each of the patients, and make them aware that the website we were using hadn't had sign off from our Trust. Every patient seen was fine with this and didn't need any further assurances with regards to the system we were using.

After changing systems used, Steph estimates that less than 5% of the sessions were negatively impacted by the technology we were using.

The patient responses of initial OASES were overall positive;

“*I would recommend telehealth as an alternative delivery of speech therapy. This is the same as face-to-face sessions.”*

“That they should do it, it’s just as good as face to face speech therapy and it’s easily accessible from your own home. It’s also time effective as it only takes one hour and opposed to the hour and then added travel time.”

“I would tell me that it is a very positive experience which will improve their life and overall well-being and would strongly encourage them to consider having therapy via telehealth.”

“The fact that things were from a computer and that made it a lot easier to reach out to (therapist) … I felt more comfortable to ask questions….I would say there was less pressure for me over a computer and seeing someone on camera, that make things a lot easier for me to communicate with them.”

Although some of the patients did comment; *“Sometimes, I wished I would have been in the same room with the therapist. It was great being able to see them via WebEx or appear.in, but at the same time, I felt a little bit that the human experience was missing.”* One patient said; *“Yes, definitely, though it may be better to compliment face to face therapy as opposed to replacing it.”*

“Of course I wish we could have been in the same room….and having even at the beginning of a meeting, for example, those small interactions and exchanges of. ‘Hi. How was your day’… something like this, which is more difficult over the internet. And being in the same room…feels a little bit more intimate in some way, like we’re sharing the same room and what we speak about in this room stays in this room”

From early evaluation, the below conclusions have been made:

- Data is from a self-selecting group who are already likely to feel positive towards telemedicine
- Therapy made a positive difference to patients’ experience of stammering
- The main reasons for seeking telemedicine were lack of access to services and convenience
- There were some concerns about the practicalities of the technology before starting but it mostly worked well in practice
- There were mixed views about building a relationship with the therapist, compared with face-to-face
- For some patients, using telemedicine itself was helpful therapeutically

Sustainability

Another major learning we have taken from the project is how long improvement can take to gain momentum. Unfortunately for our project this has led to it not getting the long-term funding in place before the Health Foundation Funding has ended. Internally within the Trust, it is now high-up the agenda for looking into long-term options but not in time to allow a continuous operation. This means there is a higher risk of the therapy sessions losing the important momentum the project has built during the last 12 months. We do have robust systems in place to counteract this which will allow it to be more easily reinstate once funding is agreed.

Part 5: Sustainability and spread

Currently there is no long term funding in place for the project. The project has been in front of the Airedale NHS Foundation Trust's Digital Futures Board. This Board meeting was very positive about the findings and learnings made around innovation and the obstacles we as a project have faced, as well as telemedicine and the pros, cons and issues we encountered.

As part of that meeting, it was discussed that the Trust's head of Planning and Performance would take the Speech Therapy to NHS England in order to try to get it commissioned throughout England via Airedale NHS Foundation Trust. This would allow for a continuation of the service and would enable the adults who cannot currently access the therapy, to do so regardless of where they live, truly encompassing the NHS Constitution.

However, due to the current financial climate within the NHS, and also due to limitations within the infrastructure of NHS England, this option is looking increasingly unlikely in the short to medium term. However, given the success of the project, we would hope in the medium to long term, NHS England would be in a position to commission the service as a standalone service. This would give the Trust reassurance of the sustainability for staffing continuity, both for the project and therapies core services.

The project however has won the Digital and Technology Award in the Guardian's 2017 Public Service Awards (Please see here). This was not only a very proud moment, but allowed the project to gain a lot of publicity, both externally and internally within the Trust.

As a project team, we are holding a session on the 20th April which will include a presentation on the telemedicine process, along with the clinical learnings from the project.

We have also been invited to speak at the Haelo mid-point event to the next cohort of Innovating for Improvement teams in June 2018.

The BBC is looking at producing a piece on the project and its effect on people who stammer.

Steph has also applied to present at the 40th BSA Conference in September 2018. This will be attended by people who are affected by stammers as well as clinical peers.

We as a project also won the award for Innovation and Technology in our annual Pride of Airedale award which was judge by a panel of Airedale NHS Foundation Trust employees and governors.

The project has been very successful in being recognised for its ability to bring innovation to the NHS. It has been widely applauded for its approach to innovation and improvement.

Throughout the duration of the project, the team has ensured that there is a robust PMO in place, including updated SOP and procedural documents. This documentation will enable anyone within the Trust to be able to implement the basic infrastructure to introduce telemedicine into their specialty, although allowances will need to be made for variances in processes throughout different specialties.

There are 2 main avenues we would look to in order to ensure this service can be offered long-term:

- Individual Funding Requests (IFR) through the CCG's – this is a complex and time consuming way to access a service as a patient and also offers little in the way of continuity planning for staff in the initial stages.
- Funding the service through NHS England – as previously mentioned, this would be difficult with their current infrastructure.

We need to await decisions within our Trust around the job planning for core services to see if there is any flex to pursue the IFR route for long-term sustainability.

We have also applied for, and been informed the application is currently frozen, for the Spreading Improvement Award. If we are successful, we would use the funding to produce high-quality marketing regarding the project and also to enable the team to attend relevant health expositions. The expositions we have researched have attendee lists consisting of representation of over 93% of CCG's and 80% of Trusts, with 89% of delegates considering themselves to be key decision makers. This would enable us to 'market our service' to key influencers and the intention would be ensure as many of the CCG's were aware of the service as they could then refer their patients through individual funding requests.