The Buckinghamshire remote therapy project

Alys Mathers evaluates the remote delivery of a speech and language therapy service to mainstream schools

ILLUSTRATION BY **Alice Rebecca Potter**

Demand for children's speech and language therapy services in Buckinghamshire is increasing, with approximately 4,000 service users seen by 50 whole-time equivalent therapists at any one time. Travel time and costs are high, and therapists often cannot schedule sessions at the most convenient times for children and schools. Children, parents and schools have all expressed that they would like a greater degree of flexibility in when and how we deliver therapy. Buckinghamshire County Council has provided funding to develop innovative solutions to address these issues. Since Spring 2013, the Bucks SLT Assistive Technology Team (including two SLTs and an SLT Assistant) has been working on two projects; a new website (www.oxfordhealth.nhs.uk/slt-bucks) and the remote therapy project.

Video-conferencing tools

Internationally, video-conferencing tools such as Skype are used to deliver speech and language therapy remotely (ASHA, 2015). Existing research into remote therapy has examined efficacy in delivering specific interventions (eg, targeting articulation disorders – see literature review by Edwards et al, 2012; Lidcombe program, O'Brian et al, 2014). Matthews et al (2012) investigated delivering therapy via Skype as part of a private speech and language therapy service. There is, however, a lack of evidence relating to delivering a mainstream schools speech and language therapy service remotely (Edwards et al, 2012).

In Spring 2015, the Buckinghamshire Children's Speech and Language Therapy Service evaluated the use of Skype to deliver one-to-one therapy sessions in primary and secondary schools. We aimed to:

- Identify whether student progress towards their therapy targets was comparable to that with face-to-face therapy sessions (using therapist and student-rated goal-based outcome measures).
- Investigate potential time savings, through therapist records of time spent on activities, such as travel and preparation.
- Establish the acceptability of delivering therapy via Skype by collecting the views of children, school staff, families and therapists in focus groups before and after the Skype therapy sessions, and questionnaires at the end of the evaluation.

> *"Offering a Skype therapy option could lead to a more flexible service"*

AB/BA study design

We invited 210 students to take part in the evaluation. To participate, they needed to be receiving almost weekly face-to-face therapy sessions. This enabled comparison of up to 10 therapy sessions over the evaluation period. It also meant the students had a wide range of significant communication needs. Consent forms for parents and schools included information about the project, and participants were free to withdraw from the evaluation at any time. Forty families agreed to take part, but the sample size was subsequently limited due to one school not agreeing to participate, and other schools' lack of equipment, space or staffing to supervise sessions.

Twenty-two students (13 boys, nine girls) in 17 different schools took part. Sixteen attended primary school, and six attended secondary school. Fourteen therapists were part of the study. We used an AB/BA study design – students received half a term of Skype therapy and half a term of face-to-face therapy, and were allocated to either Skype therapy first or face-to-face therapy first groups.

Students accessed their Skype sessions in school in the presence of a learning support assistant (LSA). Therapists carried out the sessions from an NHS base and delivered between two and five therapy sessions each half term. We gave the SLTs training in how to use the equipment before the project and they had a chance to deliver practice sessions to trial their therapy activities. Therapists and LSAs also received training about information governance procedures and the trust IT policy. They followed guidelines for using Skype for clinical purposes throughout the evaluation.

Goal-based outcomes

We collected goal-based outcome measures at the beginning and end of each half term (before and after the Skype and the face-to-face sessions). Therapists set the goal-based outcomes with the students, and both therapists and students rated the targets on a five-point scale from 'very hard' (=1) to 'very easy' (=5). Progress scores were the difference between these two ratings. Therapists used whichever intervention methods they felt appropriate, so as to replicate 'therapy as usual'.

Due to the small sample size and the participants' wide range of communication needs, the clinical conclusions we can draw from this evaluation are limited. However, a t-test comparing the amount of change in scores for Skype versus face-to-face therapy suggests there is no significant difference between progress made in one mode of therapy versus the other for therapists' [$t(124)=0.176$ $p=0.86$] or for students' [$t(124)=0.089$ $p= 0.93$] goal-based outcome ratings (table one).

Analysis of the therapists' activity forms shows therapy sessions and administration tasks took a similar amount of time regardless of the mode of therapy. However, Skype therapy significantly reduced therapist travel time (from 22 minutes to eight minutes). Slightly more time was spent on preparation for Skype (12 minutes) than face-to-face therapy sessions (seven minutes), because therapists were familiarising themselves with this new way of working. School staff commented that Skype sessions were well prepared and effective.

Before the Skype therapy sessions, focus group feedback showed participants had mixed views about trialling Skype. Participants acknowledged potential benefits, but many therapists and school staff were apprehensive.

Following the evaluation, participants across all groups were more enthusiastic and perceptions were more positive. Therapists commented on the benefits of having training and technical support during the evaluation.

Some LSAs felt more involved with the Skype sessions than with the face-to-face sessions ("Definitely it's very interesting... I always took the view that when you used to come you were running the session and I shouldn't talk too much, whereas it's quite different.") and therapists commented on the need for well-trained LSAs to support students during the Skype sessions.

Skype satisfaction

More than half of school staff were satisfied using Skype for therapy and would recommend it to colleagues. Technical issues, such as distorted sound and picture quality, were the main reasons for not recommending Skype. Therapists and school staff also commented on Skype being less suitable for students with severe communication needs and for some specific interventions. There was also agreement that working on social communication targets was not appropriate.

Skype's efficacy with those with attention and listening difficulties was mixed – some students were more focused during their Skype sessions than their face-to-face sessions. Further research into the use of Skype as part of a mainstream schools service for specific client groups and intervention methods is required.

School staff and therapists felt Skype therapy would be most effective when delivered as an option alongside face-to-face therapy. Therapists felt face-to-face sessions would be better for initial introductory sessions to build rapport, conduct assessments and introduce new targets and activities; whereas remote sessions would be appropriate for delivery and review of ongoing therapy.

This was an initial exploration of the use of Skype in a busy mainstream schools service. Offering a Skype therapy option could lead to a more flexible service if reliable IT equipment and support, for both the schools and NHS sites, is in place. Careful caseload management (eg Skyping all children on one day) would see significant effects on travel time. ■

Table one: Therapists' and students' goal-based outcome ratings

	Therapists' average scores			Students' average scores		
	Pre-therapy	Post-therapy	Change	Pre-therapy	Post-therapy	Change
Face-to-face	2.76	3.55	0.79	3.17	3.64	0.45
Skype	2.64	3.45	0.81	3.27	3.73	0.47

Alys Mathers, SLT Oxford Health NHS Foundation Trust. Email: alys.mathers2@oxfordhealth.nhs.uk

References & resources

American Speech-Language Hearing Association. *Telepractice: Overview*. 2015. http://tinyurl.com/j4cdw5x

Edwards M, Stredler-Brown A, Todd Houston K. Expanding use of telepractice in speech-language pathology and audiology. *The Volta Review* 2012; 112:3, 227-242.

Law D. *Goal based outcomes (GBOs): Some useful information*. Internal CORC publication 2006. www.corc.uk.net

Matthews RA, Woll B, Clarke M. Researching the acceptability of using Skype to provide speech and language therapy. *International Journal of Integrated Care*, 2012; 12 (Suppl 1).

O'Brian S, Smith K, Onslow M. Webcam delivery of the Lidcombe Program for early stuttering: A phase I clinical trial. *Journal of Speech, Language, and Hearing Research* 2014: 57:3, 825-830.