# Best practice in delivering Auditory Verbal Therapy to families of children with a hearing loss and distance training to professionals.

Rosie Quayle, CertMRCSLT, PGDip AVT, LSLS CertAVT®

Clinical Lead Auditory Verbal Therapist, Auditory Verbal[UK]

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Contents: Page




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**Abbreviations**

AVT – Auditory Verbal Therapy

HL - Hearing loss

ToDs - Teachers of the Deaf

RCSLT - Royal College of Speech & Language Therapists

BATOD - British Association of Teachers of the Deaf

# Executive Summary

## Purpose of the Fellowship

The Fellowship aimed to explore best practice in the provision of listening and spoken language services for families of deaf children by leading centres in Australia and New Zealand. As the Clinical Lead at the charity Auditory Verbal$^{UK}$ (AV$^{UK}$), which works with deaf children across the UK and trains professionals in the auditory verbal approach, I was privileged to spend six weeks learning from clinicians, families, analysts and management teams about the ways in which they have broken down barriers to deliver high-quality auditory verbal therapy services to large caseloads of children, with excellent outcomes – whether this be through one to one therapy, tele-practice, parent education, social skills development, graduate support or training for professionals in the field.

With growing demand for auditory verbal therapy services in the UK and a desire that deaf children should have the same opportunities in life as hearing children, the Fellowship provided a unique opportunity to see first-hand how similar organisations, who have been operating much longer than AV$^{UK}$ have put in place the building blocks for successful programmes. In particular, to understand how they have developed robust structures and quality assurance processes to ensure the quality of their intervention remains high and that their 'graduates' are effectively supported long beyond the end of their early intervention programme.

Careful research was carried out before the trip to ascertain what learnings each centre might provide under the key aims of the fellowship. A range of methods was then employed to collect information at each centre, including observation, interviews with families and professionals, opportunities to try out the technology, participation in therapy sessions, examining research and observing video of different areas of practice. This enabled firm conclusions to be drawn about the most successful elements of the centres' approaches that could be emulated in the UK.

## Findings & Conclusions

Each of the centres visited has a range of different programmes and services for families which are underpinned by the universal principles of the auditory verbal therapy approach. They have secured a significant amount of government and voluntary income enabling them to provide services at significantly lower cost to families across Australia and New Zealand. All of the centres have been operating for much longer than AV$^{UK}$, but started from the same position – as small charities with a mission to raise expectations for deaf children and enable them to have an equal start in school.

Tele-practice is relatively new area in the UK, and learnings from Australia have provided key areas to consider in shaping a programme, including: frequency of appointments, if/when to do outreach visits, how to plan collaboratively with families, technology required, funding and resources needed for therapy. There is good evidence provided from across the six centres that make up the First Voice Network of the benefits of such a programme, both in terms of research and family and professional evaluations.

Social skills development is an area of growing interest to both families and professionals in the field of hearing loss, as research increasingly tells us that this can become an area of challenge for children as they move through the school system. The First Voice network has responded to this in a range of ways, but with common agreement that getting children together to do a joint activity can provide the foundation for assessing and providing strategies to improve their social skills and allow them to share ideas and challenges with one another. A programme in the UK could usefully provide this support to AV graduates, and a pilot should be put in place at the earliest opportunity.

Whilst the content of distance training in the UK is well developed, there have been many challenges in providing this content in the most user-friendly way. Hear and Say and RIDBC have vast experience in this area and were able to provide practical advice about the best packages to use, and the

opportunity to explore 'hands on' how they would work in our setting. Using this information, we are now designing a new area of our website to host the training and add this functionality.

As centres have developed and grown, they have developed structures and processes that we can learn from, including separation of management from mentoring, with regular rotation of mentors to ensure consistent quality of therapy across the organisation. Putting in place the IT infrastructure to allow team members to communicate easily is key in this, alongside ensuring that there is regular liaison between members of different sub teams including the senior management and clinical teams. Effective quality assurance processes need to keep pace with organisational growth, and seeing the database system at The Shepherd Centre, which took three years to develop has provided inspiration for a funding bid to bring this model to the AV[UK], saving considerable time and resource in developing a bespoke system. The First Voice network have a specific assessment protocol which is also being explored to see if it could allow comparison of UK outcomes with those overseas, so allowing us to track our outcomes in comparison to their large cohort, and further strengthening the international evidence base for the auditory verbal therapy approach.

Finally, there was the opportunity to meet the inspiring mentors from 'Hear for You' who provide mentoring to teenagers with a hearing loss. The outcomes reported have led us to explore running a franchise of this organisation in the UK, which we hope may launch in 2017

I am proud to have been able to represent the Winston Churchill Memorial Trust during the Fellowship, both at home and abroad. The personal and professional learnings from this visit have been hugely significant and I look forward to taking forward the recommendations of this report with my colleagues at AV[UK] and other professionals working in the field of hearing loss across the UK.

# Introducing the project

## Background

Most deaf children start primary school with the language skills of a two-year old. Even with specialist technology (hearing aids or cochlear implants) they can struggle to access education, make friends or communicate their thoughts and feelings to others. With a significant language delay, their exam results may be poor and employment prospects low. Auditory Verbal Therapy makes a lifelong difference in just three years, and approximately 80% of the deaf children attending a programme of Auditory Verbal Therapy at AV[UK] develop listening and spoken language skills *equal to or exceeding* children their age with typical hearing.

Auditory Verbal Therapy (AVT) is delivered to children who have a permanent hearing loss, ranging from mild to profound losses. It aims to develop their spoken language through listening, without the need for visual approaches such as sign language or lip reading. . It is delivered in partnership with the child's parent or carer, with the aim of equipping them to integrate listening and spoken language into their everyday life – while at the park, in the car, playing or cooking. Auditory Verbal Therapists pursue a three year post-graduate training programme leading to international accreditation as a Listening and Spoken Language Specialist (LSLS) Cert AVT®. The LSLS Cert AVT® is a qualified teacher of the deaf, an audiologist, and/or speech and language therapist who has been certified by the Alexander Graham Bell Academy.

AVT has been a long accepted approach worldwide and its profile is growing in the UK. Auditory Verbal[UK], a charity and the UK's largest provider of auditory verbal services to families, was established in 2002 by Jacqueline Stokes, who brought the approach back from colleagues in Canada and became the first LSLS Cert AVT® in the UK. Centres in Australasia have been established for at least 10 years

longer than in the UK, and have been successful in mainstreaming the approach as part of the typical provision for children with a hearing loss and training professionals who work in the field.

# Aims, objectives and purpose

In order to provide the best possible service to families across the UK, we can learn from centres worldwide that have an evidence base and proven track record at delivering high-quality services to families and producing excellent outcomes. The objectives for this project were to:

1. Explore ways that organisations have broken down barriers for families to access Auditory Verbal Therapy, with a particular focus on tele-practice sessions to serve families who live long distances from auditory verbal (AV) centres.

2. Enhance the UK training programme for NHS and education professionals who want to qualify as auditory verbal therapists by establishing best practice and exploring innovative techniques and ways of running these programmes over distance.

3. Learn how centres with the same aims and initial growth as AV$^{UK}$ have successfully scaled up and developed robust systems to ensure best clinical practice – including databases, clinical quality assurance and mentoring.

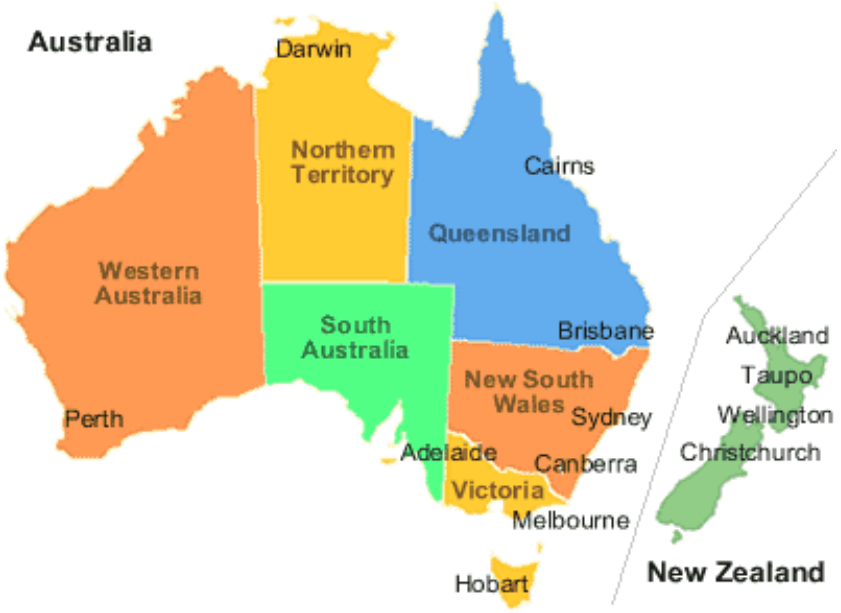
4. Develop practice with AV graduates and teens, to support them in becoming successful life-long learners and helping them navigate the teen world of friendships and identity.

# Approach & Methods

The following centres in Australasia were identified as having expertise in areas that could inform the aims of the Fellowship:

| Centre | Expertise relevant to the project |
|---|---|
| Hear and Say, Brisbane | Upscaling of centre structures and process, tele-practice programme, social skills programmes, established delivery of distance training, research database and designated researcher, leadership structure of clinical team, quality assurance processes. |
| The Shepherd Centre, Sydney | Use of their clinical database system, assessment protocols, tele-practice programme, starter programme for parents, team meetings, management structure and processes, quality assurance and mentoring. Centres across Sydney and in Canberra to review communication between staff at different locations. |
| RIDBC, Renwick, Sydney | Delivery of distance training and tele-therapy to families. |
| Matilda Rose Centre, Sydney | Breaking down barriers for families of children with additional needs. |
| The Hearing House, Auckland | Delivery of outreach and tele-therapy services to families across New Zealand, in-house training and mentoring of therapists. Support to AV graduates. |
| The Southern Cochlear Implant Programme, Christchurch. | Delivery of tele-therapy services to families, integrated with some visits to centres, resources for therapy, opportunity to watch sessions in action. |

| | |
|---|---|
| Cochlear Headquarters, Sydney | Meet with Global Rehabilitation Manager, review technology used for distance rehabilitation, and ways professionals across Australia are supported by this Cochlear Implant manufacturer. |




In order to obtain the widest representation of opinions possible, a range of information collection techniques were used. These included:

- ✓ Interviews with parents
- ✓ Informal chats with families
- ✓ Observing sessions with children and parents
- ✓ Taking part in sessions
- ✓ Sitting in on tele-therapy sessions
- ✓ Hands-on experience with the tele-therapy suites
- ✓ Tutorials on the training options
- ✓ Viewing and participating in presentations
- ✓ Joining team meetings
- ✓ Participating in parent groups
- ✓ 1:1 talks with managers and supervisors
- ✓ Exploring resources
- ✓ Examining different databases
- ✓ Seeing databases in action
- ✓ Presenting to teams

# Major Findings

# 1. Best practice for families – Breaking down barriers:

It was a huge privilege to be able to join in with sessions across the centres. It was so edifying to see that whilst we may be thousands of miles apart, the rigorous mentoring and assessment process behind the AVT qualification ensures that therapy looks much the same on both sides of the world. This is a testimony to the pioneers of the field, the process put in place by AV International and, later, AG Bell, and the tireless work of mentors worldwide who are working to deliver the best possible therapy and services to families.

## a) Tele-therapy

Australia have long been world leaders in the AV world for their use of tele-practice. They have presented at conferences on the subject for many years and have research evidence that it can be just as effective as face to face therapy (Constantinescu et al., 2014). With their proven track record, it was key to find out what makes their programme successful in order to emulate this for families across the UK who cannot access regular therapy from trained therapists due to geographical barriers. Amongst the organisations that I visited, there was both commonality and differences in the methods and technology used. These are presented in the table below, followed with suggestions as to how this could be implemented for centres in the UK.

| Centre | Technology used | Type and regularity of contact | Resources |
|---|---|---|---|
| Hear & Say | Skype, with Skype for Business currently under installation.<br><br>Recorded using SuperTintin | Usually weekly contact with a planning session one week followed by therapy the next week. One hour slots for planning and therapy.<br><br>Families fly in for 1 x assessment session and 1 x intensive week per year.<br><br>Therapists visit child's local setting and home 2 x per year. | Boxes sent out to families termly containing theme based toys e.g. .for babies or 'space' themed.<br><br>Intensive week geared to perceived needs of cohort e.g. positive parenting, technology, self-esteem etc. |
| Royal Institute for Deaf and Blind Children (RIDBC) | Polycom multipoint infrastructure.<br><br>TV screen, main camera & table microphone.<br><br>Document reading camera.<br><br>Router and sim card if family don't have adequate internet connection. Families provided with unit and camera. | Yearly residential programme (3-5 days).<br><br>Groups with other children<br><br>Weekly or fortnightly sessions, flexible appointments at evenings and on Saturdays.<br><br>Remote mapping of Cochlear implants. | Technology survey sent to families before therapy to ensure they provide the right package for video conferencing.<br><br>Session resources sent to family ahead of each session.<br><br>Residential programme provides parent education and groups for the children. |

| | | | |
|---|---|---|---|
| | Ongoing support from IT company to install units in families' homes. | | Video conferencing can be accessed by PC, tablet or phone. |
| The Hearing House | Skype run from a desktop PC.<br><br>Video conferencing equipment provided if family doesn't have access to good Wi-Fi / technology. | Families encouraged to visit the Auckland centre for the first term, followed by outreach/skype appointments.<br><br>Combination of fortnightly skype sessions and outreach, with therapists travelling to outreach clinics in strategic locations across the north of the island.<br><br>Remote mapping of cochlear implant by habilitationists during outreach visits. | Session plan is sent to family ahead of session, parent encouraged to run session, therapist coaches online.<br><br>Box of toys sometimes given during outreach visit for the next 2-3 sessions. |
| The Southern Cochlear Implant Programme | Skype, on remote devices to enable access to schools where necessary. | Families flown to centre for regular implant mapping combined with AVT.<br><br>Particular emphasis on training teachers and school staff through skype sessions to the school.<br><br>Families are visited once a term, and visit the centre once every 3 months minimum. | Skype sessions also allow close working with ToDs who are often present at appointments.<br><br>Initially a pilot programme, continued after positive family evaluation surveys.<br><br>Email of areas to be covered and resources is sent, toys sometimes provided on visit. |

It was interesting to hear the issue of poor internet connection can affect therapy worldwide, although there was general agreement over how much the technology has improved, meaning tele-therapy is a realistic and effective way to support families. RIDBC have overcome this through use of a more sophisticated system (see table above) which delivers more accurate and reliable picture and sound, although at great expense. The unit also allows group therapy, which means they can support families living in remote locations by enabling them to meet other families and children with a hearing loss. Similarly, The Hearing House provide video conferencing technology to families who cannot access Skype.

There were some differences in philosophy about the way the approach was used in difference centres. At Hear and Say there was a strong emphasis on planning sessions collaboratively with parents. The planning session aims to allow the therapist to build the parents' independence by encouraging them to explore their child's progress, what they would like to work on next, and then how they might do this in the following week's session. Therapists endeavour to ask questions and give families time to do their own thinking so that they increasingly take ownership for building their child's listening and spoken language skills. Families are brought to the centre twice a year, once to ensure that language outcomes are being measured and a second time for an intensive week including parent education and social skills groups for the children. This aims to equip parents and children and enable them to meet families

with similar needs. This is a great way to integrate families who may feel isolated if they only access therapy at distance.

At The Hearing House, families are provided with a session plan and toys and the emphasis is on them getting the practice at 'doing' AVT with the therapist coaching them over the connection. This is after an initial period of a term where the families visit the centre, assuming that by the time they skype they have acquired a range of basic skills in enabling their child to listen and talk.

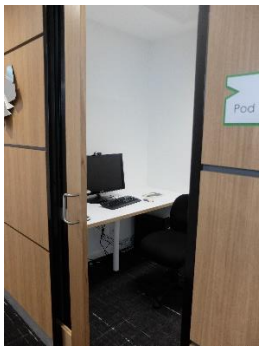
Therapists at Hear and Say and The Hearing House go out to families with frequencies ranging from twice a year to monthly, providing invaluable opportunities to visit their home and childcare settings and to train the staff to maximise their listening in these situations as well as troubleshooting any issues. Funding is sought for both these outreach and the face to face visits and most centres have secured regular funding for this through government contracts or through their fundraising efforts. Therapists work with families in similar geographical areas to allow them to make fewer, but longer trips per year. This ability to see the local context is a key consideration for AV$^{UK}$, particularly in areas where a number of families may be accessing the service. We have direct experience of this at AV$^{UK}$ with our work in Belfast, Northern Ireland.

RIDBC offer a residential intensive week for families, with free accommodation provided onsite, but often may never meet a family 'in person' through the course of their therapy because of the distances involved. Unlike Hear and Say, they plan sessions, in agreement with parents, but the live session does not involve any planning. Toys are sent out to families for each individual session, although this tends to happen less as a family progresses through the programme and becomes able to integrate the goals into toys they may already have at home.

In piloting their Skype programme, the Southern Cochlear Implant programme asked families and professionals to complete an evaluation form to explore the benefits of this type of therapy. Key findings were:

- Increased 'ownership' of the therapy by families – reporting more areas they would like to cover, ideas for sessions etc.
- Families liked having more regular sessions.
- Professionals felt they had a stronger relationship with families – families were more likely to report progress and issues to them.
- Useful to have a range of times when you can skype a family – during breakfast, play or a school lesson.
- Teachers and school staff were better able to identify the child's progress and issues arising.
- More family members could be involved.

This provides strong evidence for the benefit of a Skype programme in the UK. Whilst there were differences in the prescriptiveness of programmes in terms of planning, there was wide agreement amongst families and professionals in Australia and New Zealand that the therapy is hugely useful and effective. This is supported by published research outcomes.



*Tele-intervention 'pod' at Hear and Say*

*Tele-conferencing suite at RIDBC*

## b) Parent education

Hear and Say work hard to ensure that they are able to provide education and engagement for parents and families in other environments alongside their AVT sessions. Two years ago, their Clinical Manager started a 'Listen Little Stars' programme for babies and their parents. The aim was to provide a space where parents could meet one another and have opportunity to talk, alongside some activities and education that would support what they were learning in their AVT sessions. The group runs fortnightly on a Tuesday, and comprises of singing, activities, a parent education element (for example, how to use books) and time for coffee and parents to talk to one another. The group aims to focus on early parent-child interaction and attachment, rather than on use of too many toys, so laying essential foundations for later communicative and social competence. Unfortunately, the session was not running on the week I visited, however I was able to talk to parents of children in the older playgroup, LEAP, who reported how helpful they had found the sessions and how it had built a community with other parents for them. This is an area that I would really like to develop from our centre in London particularly, where families living closer might be able to access a group like this regularly.

*The state of the art 'LEAP' nursery at Hear and Say, with space for integrated Occupational Therapy.*

The Shepherd Centre (TSC) run a similar pre-school group for families called 'Kidscape' where after a similar one-hour play session, the parents go upstairs for coffee and an education session, while the children are cared for by volunteers and a group leader in the nursery setting downstairs. This enables

the parents to take time out to focus and therapists report that parents who come to the group are noticeably more knowledgeable about their child's hearing loss. The group is facilitated by one of the centre's Child and Family Counsellors, a counsellor or psychologist by background who has good knowledge about how family systems operate. They are an integral part of the team at TSC and could be usefully integrated into group programs such as this in the UK, creating space for parents to listen to and support one another. It was a privilege to be able to join in Kidscape sessions at various TSC centres and enabled me to get a feel for how diverse the groups can be in different locations. The education covers topics such as audiology, latest research and opportunities such as 'grandparents' day' where grandparents can come in to ask questions. This environment seemed to provide more opportunities for parents to talk than the LEAP setting, as the children were cared for during part of the session. Speech science and audiology volunteers have been recruited from the local university to help with childcare during the programs.

It was interesting to see how at different centres the parent education and the parent support looked quite different – it was particularly inspiring to see the parents at one of the local centres really supporting one another, encouraging and sharing ideas and tips.

*Talk together* is TSC's initial programme for families and follows a structured ten week programme. It runs two streams, with parents on stream one receiving AVT immediately, and parents on stream two after they have completed the group.

| Stream | Who is it for? | What is offered? |
|---|---|---|
| One | Families whose children have a severe-profound hearing loss, who are likely to be implanted early. | Fortnightly AVT sessions, alongside 16 weeks at the group |
| Two | Families joining the programme later or with mild and moderate losses that are likely to be (or are) recipients of hearing aids. | 16 weeks at the group, with listening checks approx. once a month. |

Both groups run on a similar format, starting with a thirty-minute play and songs session, and then parents have a forty-five minute session with the child and family counsellor and an AVT or audiologist. The aim of this session is to educate parents with all the basic knowledge about listening and spoken language and audiology to equip them as they begin therapy sessions. Topics might include 'The Audiogram' or 'Strategies to help my child learn to listen.' It is key in providing a safe space where parents can share their journeys and support one another as well as equipping them with the knowledge they need to make choices for their child. The session gave parents the time and space to explore the issues they currently face around the hearing loss and to understand some of the fundamentals behind the approach. In the group time, they were able to identify some strategies that they might incorporate at home such as waiting longer or talking about an object before they get it out.

The Hearing House runs residential four-day workshops for families, with a combination of activities for the children and presentations for the parents. They also arrange evening events for parents including the chance to meet families who have graduated from the programme. Family counsellors run the parent groups alongside the therapists and audiologists, and they invite teenagers back to speak to the parents. This model is something that could be implemented in the UK to enable families to meet one another, cover the basics of the AV approach and to provide an opportunity to see children's social skills in practice. There would need to be detailed planning, funding (the programme costs £10,000 to run and is funded by a generous donor) and feedback from families to support a pilot residential programme.

AV$^{UK}$ can definitely learn from the level of parent education and support provided by the centres that I visited. The consensus from parents seemed to be that the most valuable elements of their education were in meeting and gaining/giving support to other families, and in having time away from their child to think about issues related to the hearing loss. This information will be incorporated in designing a

pilot programme at AV[UK] to support parents of newly diagnosed children with a hearing loss, particularly in seeking funding to allow childcare so that parents have time to focus on their learning.

*Parent education is an integral part of services at AV centres in Australia and New Zealand.*

## b) Social skills programs

Latest research in the field of hearing loss is telling us that many children with excellent language outcomes still struggle to make and keep friends in the noisy school environment, where their limited ability to overhear and reduced listening in noise can mean they need extra help to establish good communication with their peers and so make friends. Equipping parents and children for this is a key part of removing the barriers for families and ensuring their children have the best start in school. I was able to observe a range of programmes equipping children to work in group settings:

At Hear and Say, I was able to sit in on the **LEAP** pre-school program for children aged 18 months to 5 years. It provides a pre-school style setting one morning a week for children with a hearing loss and their siblings. Activities are set up around the room and families encouraged to do these directly with their child. There is then time for free play, a snack and a 'circle time' activity. The aims are two-fold – first to ensure that the young children are in a setting where they encounter other children with hearing technology, and so 'normalise' it and can practice their social skills, and secondly to give parents an environment to meet informally for support. Most parents reported that they find the highest value in the parent support part of the day, which enables them to share stresses and excitements with other parents. It was a fun, positive environment where children were encouraged to try things, with a strong emphasis on building their self-esteem and resilience.

'**Confident Kids**,' run by The Shepherd Centre operates in small groups and is offered to children from the age of 3, most of whom attend for two terms over a year, for eight weeks per term. They are set up with group activities to complete, such as creating a junk model together, and the emphasis is on using and honing their listening and social skills to work together successfully. The program focuses on improving their pragmatic use of language, confidence, co-working and problem solving skills. Parents reported that they find their children much more confident following these sessions, with a willingness to get more stuck in to group activities. This could be key in preparing children for the school setting. The children are assessed before and after the program, and small gains are found in their performance on the Theory of Mind Task Battery. Unfortunately, the program was not running during my visit, but I was able to hear from parents about the value they feel it adds to their package, although several reported that they would find it most helpful alongside 1:1 therapy.

Due to greater distances, The Hearing House opted for a residential approach to enabling children to meet one another, as outlined in the section above on parent education. This is an important consideration in the UK, where distances between families can be too great to allow for a regular, fortnightly session. Hear and Say run offerings for their older children such as 'Comet' and 'Star' that provide an activity based setting such as rock climbing or sports competitions to provide a place where children can meet and social skills can be developed. Therapists provide the intervention at these days, ensuring that children are equipped with the skills they need in school. This is a model that could prove useful in the UK.

*Group social skills workshops in action at Hear and Say*

## 2. Enhancing UK Training programmes

**Hear and Say Worldwide** has been delivering a distance training offer since 2009. It was hugely helpful to meet with their Education and Development manager and Senior Clinician to hear about the processes they have been through in developing the best possible technology systems to develop this training. As with our team in the UK, they had encountered similar problems with use of videos, storage, delivery methods and how to present the course in the most helpful and appealing way possible for learners. The table below covers the technology packages that they have found critical to the smooth running of their distance training programmes.

| Requirement | Technology used |
|---|---|
| Area to keep course content that can be easily accessed by participants | Use of a portal attached to their main website, with password protection – the 'Training Portal.' As the participant finishes each section, they submit the task and the password for the next section is then released. |
| Presenting video tutorials with slides | Use of PowerPoint 2013, allowing video trimming in situ and for the entire presentation to be exported as a video. Slides can be easily updated without having to re-record the tutorial. |
| Embedding video into the training portal | Vimeo – higher quality of video than competitors such as YouTube. |
| Recording of video for tutorials | Logitech webcam which allows quick capture of videos. |
| Presentation of full lectures, with slides showing in the background | Use of green screen, edited using Movie Plus, video camera and lapel microphone. |
| Multi-choice quiz as end of course assessment | www.classmarker.com – free online packages that randomly allocates the order of answers in the multiple choice. Can set the time the test is available for. |

The distance team at Hear and Say Worldwide comprises of:

a) Education and Development manager (full time)

b) Senior Listening and spoken language clinician (0.4 FTE)

c) Audiologist (0.2 FTE)

d) Administration support (0.4 FTE)

**RIDBC** kindly allowed observation of one of their distance training sessions, so I was able to see how the technology worked in practice. They use GoTo to deliver training around the world, as it provides the following key options:

- The presenter can be at a different location than the administrator, meaning international speakers need not travel to present.
- 'Seats' for up to 200 people.
- Ability to provide real-time captioning through sharing of the captioner's screen alongside the main presentation;
- Playing of videos with audio, and ability to speak at the same time as audio is being presented;
- Whole session recording and sharing, with a time limit set on how long it can be viewed for.

The addition of the video sharing capacity, which is recent, means that this could provide a useful platform for delivery of AV[UK's] s part 1 and part 2 distance training with all media presented from one place.

# 3 Developing robust systems to ensure best clinical practice

## a) Management and leadership structures

### Communication between centres

Both Hear and Say and The Shepherd Centre, who work across multiple sites, use teleconferencing regularly for team meetings and communication. Hear and Say use Skype for Business with a Logitech camera and unit, with The Shepherd Centre using Lifesize with a Lifesize audio unit. The importance of having a good screen size and audio unit was key in ensuring that meetings felt cohesive and ran smoothly. I was able to sit in on some meetings using this technology and to see how seamlessly it can run, assuming the bandwidth is adequate. RIDBC use their Polycom system for distance staff meetings, but Skype for Business for everyday communication between staff members. All centres reported the importance of this technology as they have grown and AV[UK'] is currently installing such a system to ensure optimum communication between centres.

### The Clinical Team

**Hear and Say** structure the clinical team under a LSLS clinical manager (who reports to the clinical director along with the audiology manager). Under the clinical manager are team leaders. Each 'team leader' then manages 4- 6 other clinicians (some are part time). The team leader structure allows therapists to develop their leadership skills alongside specialist training in leadership that is tailored to the mission of the organisation called the 'Hear and Say Leaders Program.' The idea of 'team leaders' rather than 'senior clinicians' managing, gets around the fact that less experienced therapists may be managing more experienced ones due to the nature of working patters or personal preferences for job roles. There is usually a senior clinician in each centre, and a senior clinician is involved in the worldwide training, but they are not necessarily team leaders. This structure could usefully be adopted in growing teams in the UK. Team leaders apply for the post, and are interviewed on merit, rather than via individual in-house promotions. This allows the team to appoint the best therapist for the job, rather than the therapist who is necessarily the longest serving.

Within the clinical team, mentors are regularly rotated for training therapists (usually once a year) to enable mentors to learn from therapists with different styles and personalities. This also provides a good quality assurance measure to ensure that trainees receive similar levels of mentoring over the three-year period. Therapists are encouraged to certify but it is not a requirement – all therapists are labelled 'listening and spoken language specialists' but only those who are qualified are referred to as 'certified.' This enables families to feel confidence that they are working with a professional who has these skills, whether or not they have taken the qualification exam.

**The Shepherd Centre's** clinical arm is headed up by a Director of Programmes, to whom the Principal Manager for LSLSs, Principal LSLS Cert AVT and Principal Audiologist report to. They meet weekly to discuss key clinical process and practices. Interestingly, the Principal Manager for the LSLS team is not an LSLS Cert AVT, the Principal LSLS Cert AVT is concerned with overseeing mentoring and quality assurance, but not direct management of the therapists. This is an interesting model to consider to enable AVTs to be engaged with more clinically based work rather than management and allows separation of management from clinical mentoring. The Principal Manager has a speech pathology background, so understands the intricacies of working with families, but is primarily responsible for the clinical processes and caseload allocation, strategic development and management of therapists. She felt that having someone with a clinical understanding and good leadership experience was key for this role, as opposed to the person needing to be a qualified LSLS Cert AVT.

The Shepherd Centre runs mentoring in a similar way to 'in-house' trainees in the UK – they are guided as to the trainee's competence and desire to work independently – initially they observe, then do joint sessions and then practice independently, with observations and supervision. They fulfil their underlying knowledge requirements through six modules that have been written covering basics such as speech acoustics and introductory audiology. The principal therapist and another therapist are responsible for mentoring trainees, meeting them initially weekly and then fortnightly, with the understanding that much of the mentoring comes from the qualified therapists that are resident in each centre. Currently around 50% of the staff are qualified, with the others all working towards qualification.

The key conclusion that can be drawn here is the benefit of separating management from mentoring – this would allow mentors at AV$^{UK}$ to rotate regularly, whilst ensuring continuity through the management structures.

## The wider organisation

**Hear and Say's** Chief Executive Officer is keenly aware of the need to create organisations that are sustainable into the future, which have processes allowing both a quality outcome for families and for the lonhjhngevity of the charity. His best advice to my role as clinical lead was to ensure that I understand the 'health economics' side of the charity as much as the clinical side, and to enable the clinical team to be part of the vision to build sustainability.

During my time at Hear and Say and TSC, I was able to sit in on a number of the regular meetings that occur to ensure that the organisation is communicating and operating effectively. These included:

- Clinical Management meetings: Clinical Managers, Clinical Director, Research Co-ordinator, and administration manager. This provided invaluable time to discuss areas including research and funding needs, clinical process issues arising and administrative support. Having the clinical team sit down regularly with the research co-ordinator was also especially useful to generate ideas for conference presentations and research papers.

- Personal Development – the therapy teams meet monthly to learn about new areas in the field and update themselves. I was able to present to them about developing theory of mind in young children during my visit, which was a highlight and a privilege.

- Listening and Spoken Language therapy team meeting – the therapy team at Hear and Say meets fortnightly (alternating with fortnightly meetings joint with audiology) to discuss clinical process, cases ideas etc. Hear and Say has five regional centres and they link up using Skype for Business and therapists are asked to input into the agenda so that they take ownership of the meeting. It provides a useful forum for the regional centres to connect with the Brisbane headquarters.

The TSC clinical team meets weekly and reviews 'flagged children' whose progress has been flagged up due to poor performance in listening checks, concern of the therapist or other measures. At the heart of this process was the clinical database – which provided the detail needed to enable the clinical team to make effective and swift decisions in relation to each child. The administration time planning for meetings and ensuring all staff have access to the necessary information from the database was key and also enabled pre-prepared agendas to focus staff time.

Observing and participating in these meetings allowed me to see the value of gathering different parts of the organisation together regularly and to put structures in place to implement and review this at AV$^{UK}$ building on our existing methods.

## b) Quality assurance

**Processes**

At Hear and Say, a team leader along with another therapist has responsibility for developing and monitoring the quality assurance of the therapy team, which is implemented in various stages. They have initially focused on the timeliness of reports, developing a database that both tells individual therapists when a report is due and can flag to the QA manager when reports become overdue. This could very usefully be used in the UK to ensure that families are getting reports in a timely manner. The database at The Shepherd Centre provides a range of additional functionality, including ability to see graphs of an individual child's progress, charts showing their responses to sound over a period of weeks, ability to store and generate short and long term goals, alongside a range of stored case history information.

**Feedback on therapy quality**

At Hear and Say, team leaders monitor quality of the therapy provided by sitting in on the sessions of those they lead regularly. Regular clinical meetings and monthly 'personal development' meetings ensure that therapists are abreast of clinical developments.

TSC ensure high quality service delivery by ensuring that therapists have places where they can easily raise concern about a child, and a flagging system to highlight any children that are not making expected progress. These are then discussed in the weekly team meeting. Therapists have 'personal development' meetings for 2 hours monthly which is accredited by AG Bell, ensuring that all team members are able to get the CEU points that they need. This accreditation for in-house training could provide a useful continuing professional development resource for therapists in the UK, alongside the CEUs currently offered by AV$^{UK}$ for external training.

**Therapy outcomes**

All centres were able to use a standard assessment battery (agreed across the six centres that make up the First Voice Network) to show the outcomes of therapy over agreed periods of time. This is highly motivating for therapists as they can monitor how well the caseload is doing across the board. These numbers exist at AVUK and could be easily computed on a 6 monthly or annual basis and

would enable us to benchmark our outcomes alongside established centres. The First voice centres assess annually, although may assess 6 monthly if there is a particular concern. The Shepherd centre have an assessment team who carry out all assessments to prevent against therapist bias. The assessment battery used across the First Voice network is:

**First Voice Network Assessment Protocol**

| Area | Language (standardised) | Vocabulary (standardised) | Speech (standardised) | Audition (criterion referenced) |
|---|---|---|---|---|
| CA 0-2$^{11}$ | PLS-5 | - | IMP | PEACH<br>CAP |
| CA 3-3$^{5}$ | PLS-5 | PPVT-4, EVT-2 | GFTA-2 | PEACH<br>CAP |
| CA 3$^{6}$-4$^{11}$ | CELF-P2 / PLS-5 | PPVT-4, EVT-2 | GFTA-2 | PEACH<br>CAP |
| CA 50 onwards | CELF-4/ CELF P2 / PLS-5 | PPVT-4, EVT-2 | GFTA-2 | PEACH<br>CAP |

Key

PLS-5 – Pre-school Language Scales, fifth edition

CELF-P2 – Clinical Evaluation of Language Fundamentals, Pre-school, second edition

PPVT-4 – Peabody Picture Vocabulary Test, fourth edition.

EVT-2 – Expressive Vocabulary Test, second edition.

IMP – The Infant Monitor of Vocal Production

GFTA-2 – Goldman-Fristoe Test of Articulation 2

PEACH - Parents' Evaluation of Aural/oral performance of Children

CAP- Categories of Auditory Perception

This assessment protocol is carried out yearly for children on the regular programme at First Voice Network centres. It allows them to collect and share information from large cohorts (First Voice, 2015), providing a challenge to therapists in the UK to be able to pool their outcomes to see how intervention is serving families of children with hearing loss countrywide. AV$^{UK}$ is also investigating the potential to operate a similar assessment model and so pool UK outcomes with those of the first voice network, following the links made during the trip.

**Feedback from families**

At Hear and Say, a yearly survey is sent out to parents to ask specific questions about how happy they are with all areas of the service and anything they would like to change. They use survey monkey to administer this and then correlate the results for a report to the board, outlining the overall satisfaction of families in these areas, and what they plan to do to address any issues raised.

The Hearing House have also seen the benefit of these surveys to review their pilot tele-practice programme. At AV$^{UK'}$ we are now developing feedback questionnaires online for families to provide a year-end review.

### c) Administration

AV[UK] has struggled to find a software package that adequately meets its needs in providing an appointment management system, finance and invoicing; outcomes and progression monitoring and communication within the organisation. Hear and Say use two packages, Outlook, which AV[UK'] uses, alongside Genie. Genie allows sophisticated appointment booking and joint invoicing, which could provide a useful solution. It also enables all session notes to be stored in a central, electronic location, enabling them to operate a 'paperless' system for families' files.

The Shepherd Centre have a bespoke database system, CDIS, which combines clinical staff and client timetables with a wealth of information on each child and can be used to input a family's individual service plan, and from this their goals and lesson plans. This is also the way that therapists keep clinical notes day to day, recording outcomes and achievement of goals in a range of areas. They employ 2.2 FTE data analysts and funding could be sought for this in the UK. In the meantime, they suggested that putting some robust clinical protocols in place for functional listening measurement and monitoring of the Ling sounds would lay the groundwork ready for such a database. The data analyst commented that putting the clinical standards and measurement protocols in place was a large part of the project, and this could be done ahead of the install. I was given details of the company and we are in the process of bidding for funding bid to deliver and run this system.

### d) Building an evidence base

**Hear and Say** and **The Hearing House** both use a Filemaker Pro database system that collects a huge amount of data on the children they see. In terms of showing clinical outcomes, there is agreement amongst the centres in the First Voice Network to use the PLS, Celf-P, Celf 4, PBVT, Goldman Fristoe and Expressive Vocabulary test. The researcher at Hear and Say is also keen to start using a non-verbal IQ test such as the RAVENS. This allows them to pool their research across the group in proving the benefit of AVT with much larger numbers. During the clinical meeting at Hear and Say, they were able to show the current results for the children they have been working with for 2 years or more to allow therapists to see the quality of outcomes they are delivering. Hear and Say have a full time research co-ordinator and 0.2FTE administration time to service the research of the organisation.

# 4. Supporting AV Graduates

Currently, there is little long-term support available for AV graduates, with most centres offering one-off assessment or therapy sessions, but no longer term or more intensive support. 'Hear for You' (HFY) is an award winning charity mentoring programme for hearing impaired teenagers to enable them to 'build their confidence and reach their potential.'

During my visit to TSC I was able to listen to a presentation to parents by the regional co-ordinator for the programme and was inspired by what they offer. All the mentors are aged 20-35 years and have a hearing loss themselves so understand the challenges and are uniquely placed to provide support to graduates of AV programmes. They offer services for both oral communicators and those who communicate through sign language (separately). The programme is split by school ages – Years 7-8. 9 & 10 and 11-12, which would need some adjustment for the UK system. Each age is typically arranged into four workshops, which run one day a month for local families or four consecutive days for rural and remote families – a good option for travelling families in the UK.

Topics covered include teamwork, identity, friendships, relationships, technology, navigating the world and leadership. Teenagers build a support network, both with one another and their mentors, who they are free to email at any point following the course for help and advice. Many parents report that it can be tricky to persuade their child to go to the first day, but they never have to persuade them after that. I met one mother in New Zealand whose children had been through the programme and found it hugely helpful. AV[UK] has already made contact with HFY to see if we could deliver their programme in the UK to graduates from AV centres and it is hoped that the franchise might be up and running in 2017, subject to securing the funding for a license, training and costs of implementing the programme. The Board of HFY have submitted an initial proposal for AV[UK'] to run the UK franchise.

Hear For You

inspiring young deaf people

*A group of mentors from Hear For You*

## Final Remarks

The Winston Churchill Memorial Trust fellowship provided me with the opportunity to learn from well-established organisations in Australia and New Zealand working in the field of auditory verbal therapy and to bring back critical learnings to develop transform the provision of services for deaf children in the UK.

Spending time with the professional teams at ten centres and meeting families of children of different ages provided valuable insight into the successful ingredients of their programmes and the way that the different organisations have scaled up their organisations and developed robust systems and clinical best practice.

The Fellowship also provided some unexpected highlights that have really enriched my personal learning and work as a clinician. These include:

- Learning more about the support for children with unilateral hearing loss, including watching a 13 year old with a unilateral hearing loss who had received a cochlear implant 6 months previously repeat open set sentences at distance through a mini-mic with her typically hearing ear blocked.
- Seeing a 3 year old girl have her cochlear implant switched on – the smile as she heard sound for the first time!
- Understanding more about the specific support for parents of children with microtia and atresia – through overall, early strategies and an initial block of therapy followed by monthly monitoring, depending on the needs of the child.
- Discussing habilitation support with the Global Head of Habilitation at Cochlear Worldwide and seeing the facilities at the Australian Hearing Hub
- Visiting to the RIDBC Matilda Rose centre – seeing the way in which they support families of children with significant additional needs through use of attachment theory alongside AVT and integrated occupational therapy and physiotherapy services. A wonderful evening talking through a presentation with Maree Rennie, lead therapist from the Matilda Rose Centre.

*Therapy in action at the RIDBC Matilda Rose Centre*

# Disseminating the learnings from the Fellowship

As a result of the project, I have already been able to discuss the learnings in depth with the CEO of AVUK and together we have shared our recommendations with the Board of Trustees. We are currently implementing several recommendations from the report, within the organisation and will be sharing learnings more widely with the listening and spoken language community in the UK. There is huge appetite in the UK to learn from the innovation and evidence base being created in Australia and New Zealand and the diagram below shows how my team and others outside for AVUK will benefit from the learnings from the Fellowship:

To ensure that the learning gained from this trip is put into practice, I have identified some milestones and goals for the next 12-18 months to implement the ideas gained from this fellowship.

## Implementation plan over the next 6 months:

| Month | Project |
|---|---|
| December 2015- April 2016 | • Complete write up of the project ready to share via PDF with interested professionals<br>• Meet with CEO to discuss changes and implications for organisation<br>• Begin development of changes to distance training using technology recommended by Hear & Say<br>• Contact made with Hear for You about a UK franchise to offer the programme to AV graduates across the UK.<br>• Present to Speech and Language Therapists about findings from my trip through Royal College Clinical Excellence meeting – 9th February 2016.<br>• Design pilot programme for social skills groups for children going to school in September 2017<br>• Develop tele- therapy package for families, submit funding applications.<br>• Design distance training package for supervision of professionals after they have completed AV training. |
| May 2016-December 2016 | • Year-end family survey to seek feedback from families on the programme.<br>• Implement robust quality assurance package<br>• Upgrade distance training technology and platforms as per those observed at Hear and Say.<br>• Enhanced tele-therapy package for families begins<br>• Pilot new parent's education group at Oxfordshire centre<br>• Launch new supervision packages for professionals |

| | |
|---|---|
| Long term changes to management and mentoring structures | • Start Hear for You franchise to offer support to deaf teens across the UK.<br>• Introduce first residential week for AVUK families |

## Thank you

A huge thank you to the Winston Churchill Memorial Trust for funding this life-changing and inspirational trip. I hope that the work that has already begun since the trip in sharing this vital information with professionals across the UK will continue the excellent legacy of the trust.

# References

Constantinescu, G., Waite, M., Dornan, D., Rushbrooke, E., Brown, J., McGovern, J., Ryan, M. & Hill, A. (2014) A pilot study of tele practice delivery for teaching listening and spoken language to children with hearing loss. Journal of tele-medicine and telecare. Vol. 20 (3), 135-140.

# The First Voice Network Centres

- Hear and Say, Queensland
- Taralye, Victoria
- Telethon Speech and Hearing, Western Australia
- The Cora Barclay Centre, South Australia
- The Shepherd Centre, New South Wales and Australian Capital Territory
- The Hearing House, New Zealand