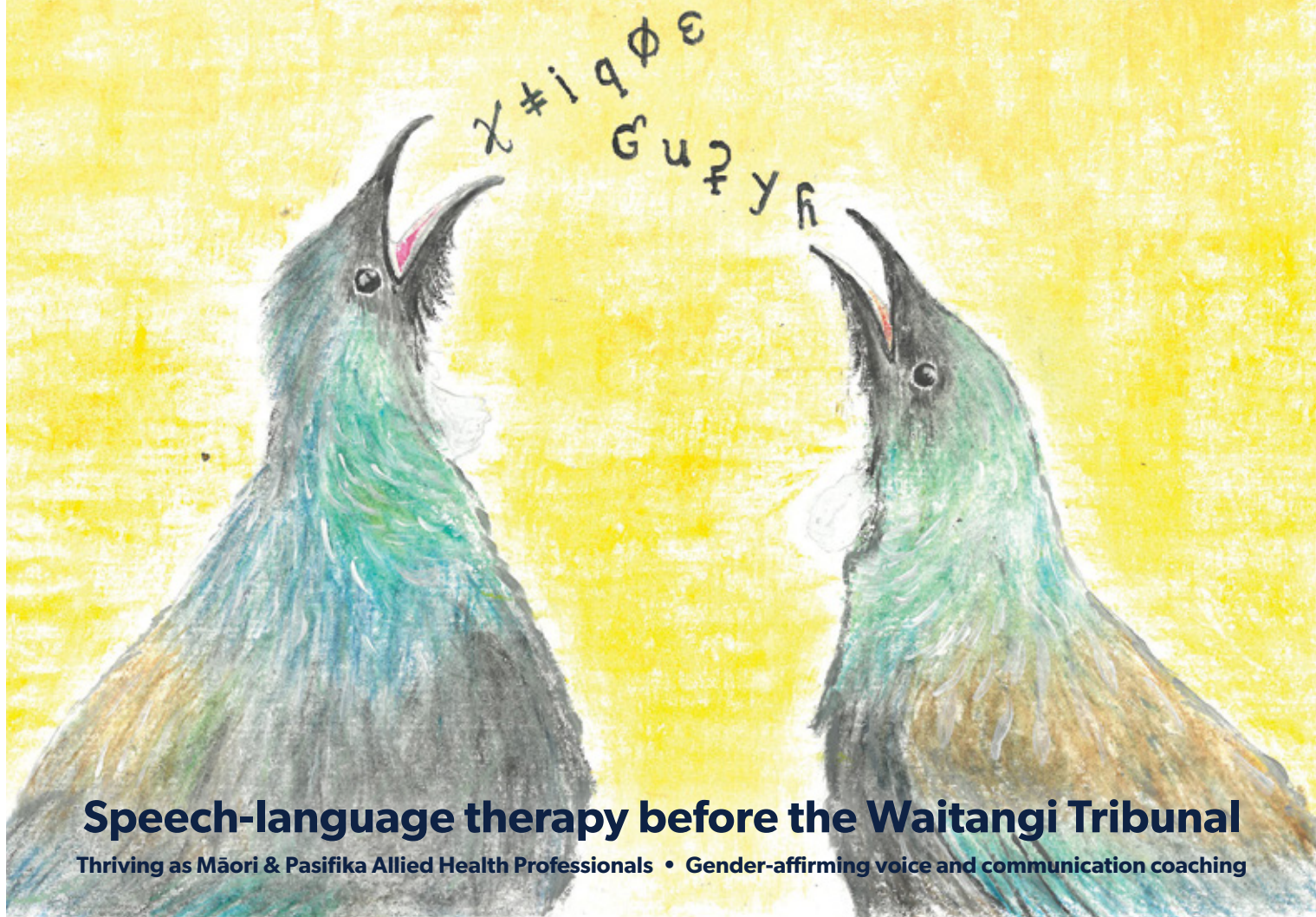


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SUMMER/RAUMATI
2023

communication **matters**



Speech-language therapy before the Waitangi Tribunal

Thriving as Māori & Pasifika Allied Health Professionals • Gender-affirming voice and communication coaching

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Cover: Dialect Differences by Emma Wollum

Please contact the editor with your ideas at any time: editor@speechtherapy.org.nz

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First words Kupu tuatahi

Judge Andrew Becroft, Patron, NZSTA

Communication matters! Indeed. I know this better than most. At the age of two and half, I started to stutter, the day my younger brother arrived home with Mum from hospital.

I was the oldest child. At the time, I had highly contagious whooping cough. Mum and my newborn younger brother had to stay in hospital for three weeks until I recovered. Within an hour of their return home, I started to stutter. During primary school, secondary school, and law school, my stuttering was severe – more of this in later columns. Suffice to say, in my second year as a lawyer, I completed a three week semi-residential smooth speech course to help those who stutter. There were four men. I was by far the youngest. Through the work of Roz Young, a speech-language therapist who led the course, my life changed. The door opened up to life as a defence barrister in court and then as a judge. I owe speech-language therapists an enormous debt.

Left to right:

Siobhan Molloy,
Emma Quigan,
Andrew Becroft,
Katrina McGarr



As patron of NZSTA, I am very keen to be enthusiastically involved and supportive. I recently met with NZSTA co-presidents Emma Quigan and Katrina McGarr, as well as NZSTA kaiwhakahaere matua / executive director Siobhan Molloy, to talk about how I can be more helpful and actively involved as your patron. Watch this space, there are many ideas. I am excited about the potential for the role of patron.

Next edition, we can set out in more detail some of the ways I can be more involved. In the meantime, if you have any ideas or suggestions, please contact Emma or Katrina. I look forward to meeting all of you in due course. ●

Warm regards and every encouragement,
Andrew Becroft

First words

Kupu tuatahi

Rukingi Haupapa (Ngāti Whakaue, Te Arawa), Kaumatua, NZSTA

The Awhi Mai Stroke Trust 2022 two-day conference took place at Te Whetū-O-Te-Rangi marae on October 10–11, 2022.

The conference was accompanied by the waiata 'oranga', with words in te reo Māori and in English listed below.



Listen to the waiata at:
[youtube.com/watch?v=uOBZ4zIWZaQ](https://www.youtube.com/watch?v=uOBZ4zIWZaQ)

Left:
Outside Te Whetū-O-Te-Rangi, the wharenui, following the pōwhiri.

This waiata is about having a future of life, hope, and quality after stroke. It will not be easy but it is possible by 'doing it' – being honest with yourself, trusting and include

others in your journey, and loving life. The song celebrates our culture and who we are, which can put bright colors and life back into a very drab and sad future. ●

Oranga

Pā mai te mate kino, mate ikura roro
Ka hē te tinana ka hē anō te hinengaro
Ka huri te wairua ki te pō tangotango weriweri
Tau kino mai te pōuritanga me te mokemoke

E hoa mā tu kaha, tu tahi maia e whai oranga

Tāonga tuku iho mai i ngā tupuna ki ngā uri
hei awhi i tō oranga ahakoa ngā pehitanga
Ko te mana, ko te mauri, ko te rangatiratanga motuhake
he aratohu arataki he huarahi tika ana

E hoa mā tu kaha tu tahi maia e whai oranga

Whakapapa, tikanga,
Tapatoru, mātauranga
Ko te kaupapa Māori e
Mā te tangata whēnua

(Chorus) E hoa mā tu kaha tu tahi maia e whai oranga
Oranga

Wellness & wellbeing

Suffering the illness stroke
causes physical and intellectual damage
The spirit then turns to the dark and scary void
that flourishes in deep turmoil and loneliness

Friends, stand strong and tall and strive for wellness

Māori treasures are passed down from ancestors to us
to support our wellbeing, no matter the issue
Choices are available to us
to support and guide on an indigenous path

Friends, stand strong and tall and strive for wellness

Connections, living safely,
health models and knowledge
This is the Māori pathway
for the indigenous people of Aotearoa

(Chorus) Friends, stand strong and tall and strive for wellness
Wellness and wellbeing

First words Kupu tuatahi

Hannah Barnes, Expert advisor for adults with intellectual disability

Kia ora, I'm Hannah, and I'm excited to be taking on the role of NZSTA expert advisor for adults with intellectual disability (communication and dysphagia).



In my current role as speech-language therapy practice lead at Spectrum Care Te Wai Kahukura Atawhai, I work with adults with intellectual disabilities within a disability service provider. I am also a member of the Assistive Technology Alliance NZ (ATANZ) board of trustees, I have my CAT 1 accreditation, I am a licensed Talking Mats trainer, and I have level 1 competency in NZSL.

Adults with intellectual disability have ongoing communication and swallowing support needs, but very limited access to speech-language therapy services in Aotearoa. I'm passionate about practical, person-centred, mana-enhancing support, focusing on the person making their own choices (rangatiratanga) and engaging with people and the community around them (whanaungatanga). I also have a strong interest in coaching communication partners, as well as designing and improving services and systems.

Working with adults with intellectual disability involves high and low tech AAC, receptive and expressive language support, communication partner training, implementation of communication strategies in complex environments, supporting decision making, and promoting accessible information. Dysphagia support for adults with intellectual disability takes into account the aspects of physical dysphagia, long-term texture modified diets, and behaviour patterns which can increase swallowing risks.

If you have an interest in the role of SLTs supporting adults with intellectual disabilities, and overcoming the gaps in available services to create a more equitable and accessible Aotearoa, please do get in touch! ●

Hannah.Barnes@spectrumcare.org.nz

Aspirations for speech-language therapy services provided to Māori following stroke

Megan Eustace, PhD student, University of Canterbury

E ai ō harirau, hei rere mai
You have the wings to fly here

This is a mihi to acknowledge speech-language therapists (SLTs) and the work that is being done to move our profession in a direction that is culturally competent and supportive for Māori. It is encouraging to sense the desire and enthusiasm for change.

The most recent NZSTA symposium warmed my heart. I have seen the word biculturalism everywhere over the last few years—in university lectures, research articles, and job descriptions. To really feel it in a room full of SLTs was uplifting. We sang waiata, connected with each other (with lots of laughter) and

openly talked about Māori and tauwiwi/non-Māori supporting each other.

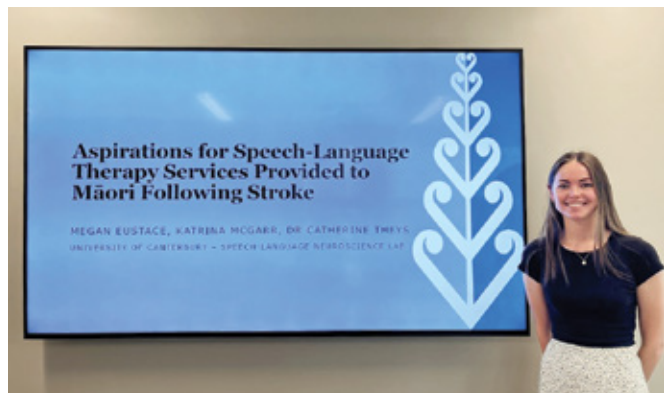
At the symposium I gave a presentation about the way forward for our profession in supporting Māori post-stroke. My presentation focused a lot on the ways our profession can improve, and how we can do better for Māori. Māori face a long history of colonisation, and it is clear that we have not yet overcome the resulting consequences. However, an area I think deserves more attention is the positive impact of speech-language therapy in post-stroke care.

In the course of my research, I noticed an interesting contrast between the perspectives of stroke survivors and SLTs. SLTs acknowledged their good intentions

to support Māori but tended to stop there, not recognising the benefits of these intentions. Yet, almost all stroke survivors and whānau had something positive to say about how speech-language therapy had helped them after their stroke. For many, speech-language therapy had achieved more than getting words out. It supported self-expression and reinstated freedom. That's huge.

One SLT quote from my research really stands out: "I want that fire and that change to keep going". To me this quote acknowledges the positive change happening in our profession and at the same time expresses a need for further improvement, a need to keep that fire burning.

Nō reira, ngā mihi nunui ki a koutou katoa. I've seen and heard SLTs doing great things—changing the way they work, pushing back against rigid systems, and embracing opportunities to learn about colonisation, racism, and Te Tiriti o Waitangi. These things really do make a difference when we are working with tangata whenua. Let us acknowledge our progress and use it as the wings to help us fly. ●



Left: Megan was awarded the Marion Saunders Trust Award for her project presented at the NZSTA Symposium.

NZSTA happenings and upcoming events



2023

NZSTA Board Meetings

Thursday 27 April

Annual General Meeting – Zoom

Thursday 18 May

Leadership summit
Te Whanganui-a-Tara/Wellington

Friday 19 May

Board meeting
Te Whanganui-a-Tara/Wellington



22
MAR

Translating evidence into practice: effective oral narrative intervention for school-age children by Laura Glisson

Live Zoom session, 2–5pm



22–23
MAR

Framework for Autism in New Zealand (FANZ)

Newlands Community Centre,
Wellington



23
MAR

Treatment for Selective Mutism in Schools and Preschools

Online session, 5–8pm



7–11
AUG

20th International Congress of the Phonetic Sciences

Theme: Intermingling Communities and Changing Cultures



20–24
AUG

32nd World Congress of the IALP

Theme:
Together Towards Tomorrow

Early Bird registration extended to 30 April 2023

Email editor@speechtherapy.org.nz to list your event on the NZSTA website in future issues!

Meeting of Waikato SLTs in private practice



Pictured from left to right: Siobhan Patterson, Emma Nahna, Brynlea Collin Stone, Laura van Amsterdam, Maria Man, Leisha Davies-Colley, Lucy Schumacher, Melva Ritchie (host).

Some of the SLTs in private practice in Waikato met on 25 January 2023 to get to know each other, and eat cake.

We noted some challenges of private practice – financial pressure (including cost of clinic space and resources etc), financial requirements (billing, tax returns), hard-to-keep work hours when working for yourself, admin, isolation (including less opportunity for debriefing), and saying ‘no’ to therapy requests.

We also noted some elements we enjoy about private practice – flexibility of time and practice, a better hourly rate when contracting, complete autonomy, doing direct therapy and getting results, keeping up our clinical skills, developing and refining our areas of expertise, and the ability to see clients more frequently than a publicly-funded service might allow.

It was great to put faces to names, and find out each other’s days of work and areas of practice. We’ll look forward to meeting again. ●

Speech-language therapy before the Waitangi Tribunal

Dr Karen Brewer (Whakatōhea, Ngaiterangi), SLT and kaupapa Māori researcher, Waipapa Taumata Rau University of Auckland

In November 2022 I had the privilege of being a technical witness to the Waitangi Tribunal. My evidence contributed to two different claims about speech-language therapy for Māori with aphasia.

These claims are both linked to the Wai 2575 Health Services and Outcomes Inquiry, which is currently hearing claims concerning nationally-significant grievances relating to health services and outcomes. I saw this as a chance to present my PhD and subsequent research, in a space which has the power to make a difference.

The link for the livestream for Hearing 4 has now become a recording to view on demand. My contribution appears first on Day 2, before the Wai 2575 Tribunal panel led by Judge Damian Stone (Presiding Officer, Ngāti Kahungunu), Associate Professor Thomas Roa (Ngāti Maniapoto, Waikato Tainui), Tania Simpson (Tainui, Ngāpuhi, Ngāi Tahu), and Professor Linda Tuhiwai Smith (Ngāti Awa, Ngāti Porou). ●

0:20:46

Dr Brewer begins a summary of her evidence brief.

1:00:21

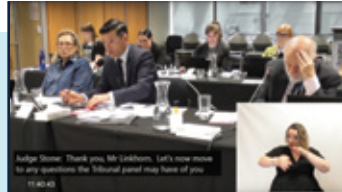
Dr Brewer presents the current mahi of SLT colleagues engaging in aphasia therapy for Māori.

1:04:09

Dr Brewer discusses SLTs' experience in providing aphasia therapy for Māori, including the results and outcomes of her PhD research.



Watch the recording at youtu.be/KqSI8KLc2cc



Tribunal members ask Dr Brewer questions, including pātai related to SLT workforce development and cultural competency, the Aka Whai Ora – Māori Health Authority model, interdisciplinary Māori health professional collaboration, and potential solutions to the underrepresentation of Māori SLTs.



Judge Stone asks his final questions, Dr Brewer makes concluding statements about the inadequacy of the New Zealand Disability Strategy and the importance of weaving an Ao Māori worldview into implementation of the Strategy.

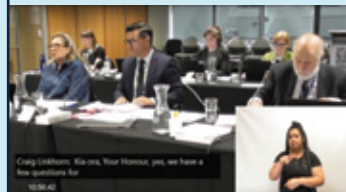
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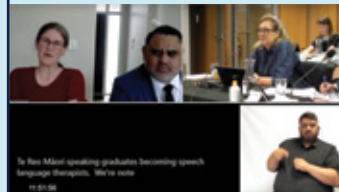
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2:49:41

The Crown (represented by Craig Linkhorn) asks Dr Brewer questions, including pātai related to whānau involvement, ideal intensity of therapy, redesigning the speech-language therapy model of care for Māori, and SLT workforce development.



Dr Brewer discusses research that Nicky-Marie Kohere-Smiler is undertaking through Te Aitanga-a-Māhaki Trust, focusing on speech-language therapy for tamariki in kohanga reo and kura kaupapa Māori.



Thriving as Māori & Pasifika Allied Health Professionals in the first 2 years of practice in a DHB setting

Ulima Tofi (Rongowhakaata, Ngāti Maniapoto, Ngāti Porou, Tufulele, Vaipuna),
Health and Rehabilitation Research Centre, Auckland University of Technology

Supervisors: **Professor Nicola Kayes** (Centre for Person Centred Research, AUT) and **Bobbie-Jo Wilson** (Ngāti Tuwharetoa, Senior Lecturer, AUT)

What inspired this study

- A desire to give voice to the unheard stories, challenges and struggles many Māori & Pasifika allied health workers face
- The need for organisations to better understand the impact these challenges have on our ability to truly thrive
- The belief that we have the solutions for change

What it looked like

- Wānanga Talanoa with 11 Māori & Pasifika AHP
- Grounded in shared Māori & Pasifika values and practices
- Strengths based focus with Indigenous research approaches
- Sharing experiences and ideas about what thriving is, what it's not, and what it could be

What we found

We identified four interrelated themes highlighting enablers of thriving, as well as experiences, challenges, and opportunities, relevant to thriving as Māori & Pasifika Allied Health Professionals in their first two years of practice.

It takes a village

Based on the proverb 'it takes a village to raise a child'. Here, it refers to the many factors, components, and people who must contribute as a village to support the nurturing of Māori & Pasifika AHP. Several sub-themes emerged, including: The Right Stuff; Leadership Matters; The Collective; Role of Allies; Giving Back.

Valuing cultural intelligence

Cultural intelligence refers to Māori & Pasifika worldviews, values, customs and ways of doing, knowing and being. Participants spoke of working at Counties Manukau Health as a responsibility or a calling, built on a commitment and connection to the area and its large Māori & Pasifika populations. The sub-themes were: Connection and commitment to the community; Being valued and recognised for their unique skillset; Bringing innate Māori & Pasifika ways of being to life in practice; and Culture and identity.

Thriving or just surviving?

This theme refers to challenges and barriers participants faced in their

workplace and the implications these obstacles have on the ability of Māori & Pasifika AHP to thrive. The sub-themes were: Racism; Lack of culturally safe settings and increased cultural burden; All the extra stuff; Fitting in and Organisational Issues.

Being at our best

An intention of this research was to provide a strengths-based platform for participants to offer solution-focused ideas to move from surviving to thriving in the workplace. Participants shared how existing systems could be transformed into environments conducive to Māori & Pasifika AHP thriving. Sub-themes were; Eco-system for success; Support us to thrive as Māori & Pasifika Allied Health Professionals.

Our recommendations

The following recommendations reflect and summarise mātauranga shared by participants. These meaalofa and taonga were gifted to sustain, not only the eleven participants involved in this research, but the many more Māori & Pasifika AHP to follow.

1

Cultural support

- Establish a progressive cultural supervision programme for all Māori & Pasifika staff who request it
- Establish and resource an in-house whānau network as an extension of a cultural supervision programme (e.g. Tuakana-Teina framework)
- Actively encourage and support participation in the above (e.g. Offer at the outset to eligible participants, protected time to allow attendance)
- Encourage and resource cultural development as a normal and expected life-long practice

3

Allyship

- Implement mandatory cultural safety training including Te Tiriti o Waitangi, decolonisation, health equity, anti-racism, privilege, being a good ally, and local history training for all staff
- Adopt and implement cultural models of health as standard practice for all (not just in cultural services)

2

Leadership

- Offer and provide specific career/ leadership development programmes to enable Māori & Pasifika to transition into senior management and leadership roles
- Set service/organisational targets for numbers of Māori & Pasifika occupying senior allied health leadership roles
- Support existing allied leaders to adopt a kaitiakitanga approach to leadership, focused on building relationships, trust and enhancing mana of those around them

4

Valuing the unique skillset

- Provide professional development that includes access to Indigenous knowledge development
- Recognise cultural knowledge/ intelligence as a specialised skillset and remunerate appropriately
- Incentivise Māori & Pasifika staff into further research

Where to from here

- Share in forums to benefit Māori & Pasifika communities
- Publish findings in relevant journals
- Use findings to develop more equitable and culturally safe working environments to better meet the needs of Māori & Pasifika staff

Ngā mihi

Fa'afetai tele lava and malo lava le soifua to all those who supported this project. To our participant whānau, thank you for gifting your experiences, thoughts, and ideas to co-create this research – I acknowledge each of you as Indigenous leaders and champions. ●

If you have any questions or comments about the findings, please contact me at ulimatofi@gmail.com

A milestone year for speech-language therapy in Vietnam

Tess Stolarchuk, Trinh Foundation Australia

2022 marked a historical year in the development of government-approved speech-language therapy education in Vietnam.

On the 27th of September 2022, twenty students successfully graduated with a Bachelor in Rehabilitation Techniques with Speech And Language Therapy Specialization from Da Nang University of Medical Technology and Pharmacy (DUMTP). This was preceded by a cohort of fourteen students graduating from Vietnam's first-ever Master's in Speech and Language Therapy from the University of Medicine and Pharmacy (UMP) in Ho Chi Minh City, at a graduation ceremony held on the 29th of April 2022.

The graduating cohorts will play a significant role in helping bridge the previously unmet need for speech-language therapy services in Vietnam. Master's graduates will teach in Bachelor degrees rolling out across Vietnam, with international mentoring support. According to Vietnam's National Survey on People with Disabilities conducted in 2016, over seven per cent of the population aged two years and older – around 6.2 million people – experience a disability (mobility, hearing, sight, and/or intellectual). It is estimated that 17–27% of people with disabilities in Vietnam experience difficulties with speech and language (according to Dr Thomas

Kane's research in 1999), although there is an absence of recent, official statistical data on this point.

Since 2008, Trinh Foundation Australia's mission has been to assist the Vietnamese people in establishing speech-language therapy as a profession in their country, through university-based training programmes, mentoring, practical expertise, and resources. The successful completion of the first ever speech-language therapy degrees in Vietnam bears witness to sixteen years of dedication and commitment by TFA's Board of Directors, partners, and volunteers.

TFA would like to publicly acknowledge the enormous contribution of local and international TFA volunteer speech-language therapists, who have undertaken various roles as lecturers, placement educators, mentors, and thesis supervisors. Between April 2020 and early 2022, all teaching moved to an online model, and clinical education adapted to a combination of simulated case discussions via Zoom and telesupervision. We commend the students and educators alike for their adaptability in working together to

enable a common goal to be achieved despite the adverse circumstances created by the pandemic. Our volunteer speech-language therapists based in New Zealand include:

International telesupervisors, case-based learning, and Simucase discussion leaders: Sharon Broadmore, Karina Sandweg, Natalia Henderson-Faranda, Esther Wong

International placement supervisors: Karina Sandweg •

TFA relies on the generosity of speech-language therapists who volunteer their time and expertise as lecturers, workshop presenters, and clinical educators and mentors. This is an invaluable opportunity for speech-language therapists who are seeking a challenge outside of their current roles. If you would like to volunteer, please contact volunteerstfa@trinhfoundation.org for more information.

Top:
TFA Director Bronwyn Coop and volunteer Sarah Day with the 20 Bachelor degree graduates.

Bottom:
TFA Director Prof. Emerita Lindy McAllister and Vietnam's first ever MSALT graduates.



Similarities and differences between special school environments in England and Aotearoa

Sarah Brooks, SLT

In 2014 I made the big decision to take a career break from my National Health Service job in England working with children with special needs, and move to Auckland for the year. That one year ended up turning into seven years, and within that time I have had the opportunity to work in three special schools.



I have now returned to the UK to raise my family, but I wanted to write this reflection on my time working in Aotearoa, and the similarities and differences I found between working in special schools in both countries.

Work Environment

In the UK I was employed by the NHS, and was assigned to two special needs schools. I was part of an interdisciplinary team, based in a local hospital, who would go into the schools. This meant that our visits were by appointment, and we were viewed as health rather than educational professionals. By contrast, the special schools I worked in around Auckland employed their own SLTs, and I got to spend all of my time within the school environment. I enjoyed working in this way, and becoming part of the school whānau. I found the advantages of this approach included:

- Having more time to build working relationships with staff. This had a positive impact on working together to implement therapy within classes.
- Getting a real understanding of the school's approach, strengths, and areas for development – this helped

me alter my approach to what was most needed, for example prioritising a whole-school approach versus upskilling colleagues on specific strategies.

- Being more involved in school staff meetings and the delivery of staff training. In the UK, it was difficult to attend school staff meetings when NHS meetings were a demand on my time.
- Increasing my involvement in IEPs – in the UK I mostly provided a written contribution to IEPs, whereas in Auckland, I could allocate time to attend. This was often enabled by the school's senior management.

However, there were advantages of working in the NHS team that I missed. These included:

- Having access to resources, documents, and policies that were created centrally. These included guidelines on therapy provision created by managers and specialist therapists, which were shared with all the SLTs in the NHS trust. In Auckland, each special school I worked in was spending time developing their



Printable AAC resources are available from the Ace Centre website at acecentre.org.uk

Left: A core board (left) and an Ace Centre communication book (right)

own version of similar documents, e.g. report templates or dysphagia management programmes. However, the Auckland special schools SLT meetings did help with this.

- Managing caseloads – The NHS had implemented referral criteria which meant that not every child within the special school was necessarily on the SLT caseload. Although our caseloads still remained large, this helped to focus my work.
- Linking with other health professionals – being based within the local hospital meant that I would often see other professionals involved with the students on my caseload, therefore providing more informal opportunities for discussion.

Challenges

I soon discovered that SLTs working in special schools face similar challenges in both the UK and New Zealand. Resource making, engaging parents, generalisation of therapy programmes between school and home, and the balance between a whole-school or individualised approach are challenges that both environments had in common. I found it quite refreshing that SLTs working in a different country were trying to overcome the same challenges, and to see how they managed these.

Culture

When I first arrived in New Zealand, I think I was quite naive to the country's rich culture and history, and the ongoing work and effort to revitalise, maintain, and develop Māori and Pasifika identity.

I enjoyed learning more about tikanga and te reo, and weaving these into my practice. It was wonderful to see students provided with opportunities to engage with their cultural identities in ways that were appropriate for them, and I will never forget the welcoming pōwhiri that I experienced at one school.

Therapy strategies

It was interesting to see how current research, particularly regarding the use of core vocabulary, has been implemented in both countries. The same theory had been applied, but different resources were created. In the UK I often used the ACE Centre communication book template, a stage-based core vocabulary communication book. When I started working in New Zealand, I became familiar with the core board, a similar strategy but a different layout, with greater emphasis on having more vocabulary available to the student at the start. It was helpful to have links with the SLTs at Talklink, and SLT colleagues to guide me through creation and implementation of the core boards.

Summary

It feels right to end my reflection with a whakataukī: Nāu te rourou, nāku te rourou, ka ora ai te iwi. My time spent working in Aotearoa New Zealand has been about learning new approaches, ideas, and resources, but also about sharing my existing knowledge in order to help students and their whānau. I look forward to returning to practice in the near future here in the UK. ●

Strength and skill in dysphagia after stroke

Karen Ng, PhD, SLT and postdoctoral research fellow, University of Otago, University of Canterbury
Rose Centre for Stroke Recovery and Research

We use strength and skill when reaching for our morning coffee – strength of our upper limb for gripping the cup, and skill and coordination to ensure it reaches the target of our lips (and not our chin). Likewise, it's likely that both strength and skill are crucial for swallowing. There is evidence that skill-based training can improve swallowing. However, little is known about how to measure strength and skill objectively, and how they are affected after stroke.

Historically, swallowing was considered to be a stereotypical brainstem-driven response that could not be altered. However, neuroimaging research points to the idea of significant cortical modulation of the motor response based on incoming sensory and environmental information. Cortical control allows us to skillfully adapt the amplitude or duration of the swallowing response to safely ingest different bolus textures and sizes. Therefore, swallowing skill may be defined as the ability to voluntarily modulate timing, force, and coordination of multiple muscles in the performance of a complex, goal-directed, spatiotemporal task.

Neurological disease can affect both strength and skill, significantly impacting functioning. There are distinct patterns of impairment that arise depending on the location of lesion along the neuromuscular pathway. Damage at the level of the peripheral muscles (e.g., myopathy) will mainly cause weakness, whereas damage at the brain (e.g., stroke) can result in weakness, decreased skill, and other impairments. In motor speech, stroke can cause different types of dysarthria that are diagnosed

according to lesion site and clinical presentation. It's possible that stroke can also cause subtypes of dysphagia based on strength and skill difficulties. Identifying these subtypes would allow clinicians to provide targeted treatment that matches the needs of the patient.

It can be difficult to identify the true pathophysiology or cause of dysphagia, by just looking at the biomechanics of swallowing. Biomechanics is the movement of structures used for swallowing (e.g., hyoid movement seen on videofluoroscopic swallowing study), while pathophysiology is the underlying cause (e.g., weakness, decreased skill, ataxia, apraxia) that causes impaired biomechanics. It's important to note that impaired biomechanics describe dysphagia, but are not the *cause*.

Our project

How can we identify the underlying cause of dysphagia after stroke? We wanted to develop a testing protocol that objectively measures underlying strength and skill in people with dysphagia after stroke, so that rehabilitation can be designed and targeted to their needs.

What we did

Three groups of people participated in the study – 55 stroke patients with dysphagia, 40 controls without dysphagia, and 19 myopathic patients with dysphagia. They all completed a testing protocol that was designed to measure strength and skill independently from each other. Strength was measured as the peak muscle activity during effortful swallowing, and the maximum force generated during jaw-opening against resistance.

Skill was measured as the accuracy and precision in controlling the timing and amplitude of swallowing and jaw-opening to hit an on-screen target, using submental surface electromyographic biofeedback and specialised software (Biofeedback in Strength and Skill Training; BiSSkiT).



What we found

Cluster analysis results revealed that all the participants could be divided into 4 clusters based on their performance on the strength and skill tests. The 4 clusters are distinct both in how they performed and who was assigned to them:

1. Relatively intact strength and skill – mainly healthy controls
2. Decreased strength – myopathic and stroke patients
3. Decreased strength and jaw skill – mainly stroke patients
4. Decreased strength and swallowing skill – mainly stroke patients

We also used a classification tree to determine which of the outcome measures would best predict assignment into a certain cluster. We found that 3 measures of skill (jaw-opening temporal skill, jaw-opening hit rate accuracy, and swallowing hit rate accuracy) had the highest prediction accuracy probabilities (73–89%).

Clinical implications

- There is no one-size-fits-all approach when it comes to dysphagia after stroke, and it's important to consider the possible underlying causes of dysphagia when planning treatment. Most stroke patients in our study had decreased strength, which means they

might respond to strength training. However, some had decreased skill in addition to weakness, suggesting targeting both strength and skill in treatment might be useful.

- The skill tests were more useful in determining which cluster participants were assigned to each group, so there is potential for skill tests to be a useful part of a comprehensive swallowing assessment.
- Finally, clusters with decreased skill always had concurrent weakness, but not the other way around. Perhaps some level of swallowing skill and coordination is needed in order to generate enough strength for swallowing. This suggests that for patients where both strength and skill may be affected, skill training might be started first.

This was an exploratory study, and more research needs to be done to replicate and validate our findings. In the meantime, clinicians can remain curious and think outside the box when conducting swallowing assessments, and consider that skill may play an important role in swallowing. •

References available upon request, contact karen.ng@canterbury.ac.nz for more information.

Left:

Jaw-opening force was measured using a compact dynamometer secured to chin and head with custom-made, adjustable head straps. Maximum force at each trial was displayed on the monitor.

Gender-affirming voice and communication coaching

Fiona Dominick, Speech-language therapist, Te Whatu Ora Hauora a Toi Bay of Plenty

Kia ora e te whānau. Since I last wrote an article for *Communication Matters* on this topic our service provided via Te Whatu Ora Hauora a Toi Bay of Plenty has continued to develop and grow.

In November 2020, Te Whatu Ora Hauora a Toi Bay of Plenty hosted a 2 day Zoom workshop on speech-language therapy practice with trans and gender diverse adults and young people, with experienced clinician Jennifer Oates. I have just completed La Trobe University's Speech Pathology with Trans and Gender Diverse People online course (recommended 70 hours), which I can't recommend enough. In November 2022, I attended the Hui Takatāpui noho marae, with the goal to whakawhanaunga with people and organisations who work in the field of gender-affirming healthcare through an Indigenous lens. For the last five months, I have been running a weekly Zoom clinic on Tuesdays to provide gender-affirming voice coaching to people in the Western Bay of Plenty, in addition to in-person support through my work in the Eastern Bay of Plenty since 2019.

I would like to outline some of the online resources I have found useful in supporting gender-affirming voice coaching, and also offer to facilitate a Gender-Affirming Voice and Communication Coaching SIG moving into 2023. This could be a space where we can share our learning from courses,

have client case discussions, increase our knowledge of current terminology, improve awareness of the experiences of our transgender and gender diverse whānau, discuss assessment and treatment tools, and highlight apps, websites, and online videos that are useful in our work (or anything else the collective wishes to bring to the table!).

If you are interested, please email me at **Fiona.Dominick@bopdhb.govt.nz** to be included in future communications. I plan to send out a Survey Monkey to gather information on what you would like to see included, and suitable timing and frequency of such a SIG.

Overall, I have found that my previous experience working in voice therapy has been extremely useful to draw upon – we as speech-language therapists have a lot of the skills required to do this mahi! It has been hugely rewarding to laugh, cry, and celebrate with clients who describe a life-changing experience, hearing their voice aligning with their gender identity for the first time.

Onto the resources! All of the resources listed here are videos available on Youtube, unless otherwise noted. ●

Voice Feminisation

Introduction videos and creating good habits

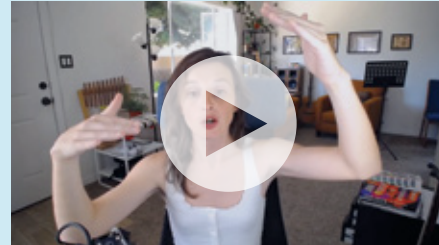
- ▶ TransVoiceLessons:
**Voice Feminization for ABSOLUTE BEGINNERS
How to Get Started Now**
A great pre-appointment introduction to voice feminisation.



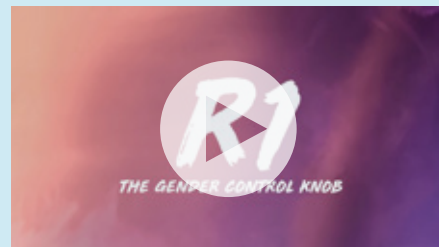
- ▶ Great Speech Inc: Speech Therapy:
Free Exercises for Straw Phonation
This video is presented as a tool for rest and recovery to release any buildup of tension in the throat.
- ▶ Great Speech Inc: Speech Therapy:
Free Exercises for Diaphragmatic Breathing
As we use the voice in new ways, diaphragmatic breathing will minimise strain, and this video is a nice support for what we do in sessions.
- ▶ Melissa Grassia Chisholm the_voice_rehab:
Vocal Function Exercises UPDATED
This video is great for strengthening up the voice and ensuring good breathing and phonation. Clients can run through these five-minute exercises each morning for five weeks (introduced after forward resonance practice, see the next category). I recommend that folks start 46 seconds in, which is where the exercises begin. These exercises also give a space to focus on pitch increases, decreases, and sustaining higher pitches, while focusing on forward resonance/high larynx.

Forward resonance

- ▶ Vox Nova:
Resonance vs. Pitch – Ear Training
Provides a good introduction to ear training and the feeling of forward resonance.



- ▶ TransVoiceLessons:
**The Single MOST Powerful Element of
Voice Feminization: The Gender Dial (R1)**
Forward resonance is often something that I work on in my voice coaching sessions. The concept of forward resonance is explained really well in this video, and there are some great exercises for experimentation with forward resonance. This is my favourite video!



Voice Feminisation (continued)

Intonation

▶ The Voice Stylist:
Intonation Work for Male to Female Transgender Voice

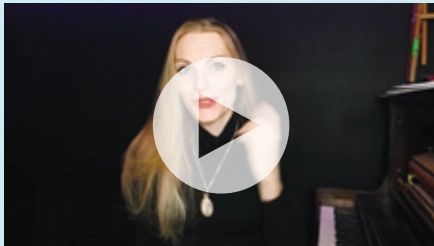
This video gives a nice outline of how to start practicing intonation. It provides contrastive intonation practice, first by saying a sentence in a bored/monotonous way (using anchor pitch), and second by increasing variability.

▶ theTerraStarYT Star:
Male to Female Voice Training 05: Pronunciation and Intonation practice

This video provides another aspect of intonation to think about – pitch gliding on vowel sounds. This approach works quite well and can be practiced on sentence lists.

▶ Seattle Voice Lab:
How to make your inflection more feminine and the differences between masc. and fem. voices

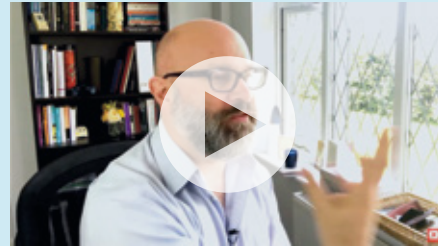
This video provides a good description of perceptual voice intonation characteristics.



Voicing with Volume

▶ Jimmy Cannon Speaking Coach:
Voice Practice Exercise #2 – Twang Voice Training For Speaking Louder & Stronger

Practicing twang can increase the volume of the voice. The helpful aspect of twang is that it incorporates a higher larynx as well as upward and forward resonance motion. This is a useful first video explaining twang voice quality.



▶ Complete Vocal Technique (website):
What is Twang?

This page explains twang with a nice infographic at the end, featuring seven ways to find twang.

▶ Xoey Alexandria:
Voice Feminization – Projection (Advanced)

This is another video introducing twang – warning there is some not-safe-for-work language in this one!

Voice Masculinisation

Introduction videos and back resonance

▶ Trans Vocal Training:
How to Masculinize Your Voice Easily with Darth Vader Breathing (Part 1)

With people seeking voice masculinisation, I begin with using exercises to lower the larynx and create space for 'back resonance'. This technique of 'Darth Vader' breathing has been working really well.



▶ Trans Vocal Training:
Simple Way to Masculinize Your Voice Easily for FtM and Androgynous Voices (Vocal Coach Anna) (Part 3)

This video presents a yawn technique that also works well to establish back resonance.



▶ Home-Speech-Home (website):
250+ K Words, Phrases, Sentences, & Paragraphs Grouped by Place & Syllable

The /k/ sound seems to encourage the back resonance that contributes to voice masculinisation (an inverse to how we use /m/ words, phrases, and sentences to practice voice feminisation). This page is a helpful resource.



As a side note, I want to highlight that people seeking voice masculinisation have a wide range of experiences. We have seen people for voice masculinisation who have not started testosterone yet but are very uncomfortable with their voice, we have seen people who have been on testosterone for ten years and are still not happy with their voice (often resonance is still higher/forward), and we have seen nonbinary folks who wish to sound more masculine but do not wish take testosterone. An open mind and heart is important to ensure a gender-affirming healthcare service does not exclude anyone!

Strategies to build confidence

- “ Write down a hierarchy of speaking situations from most comfortable to most anxiety-provoking, and gradually work through each one.

- “ Chat to people before using new vocal techniques, for example saying “I am working on a voice I feel connected to, I am going to practice using it now”.

- “ Pre-record the voice and share it with trusted and supportive people, for example saying “this is my voice I am working on, what do you think? I’m really nervous about using it”.

- “ Discuss how any voice produced is always real and authentic, because it is coming from someone with a unique personality, experience, and vocal anatomy.

Apps



Voice Tools: Pitch, Tone, & Volume

This is a free app that folks can use to find and monitor a desired pitch and look at variation in intonation. While this can be a useful tool, it can also trigger gender dysphoria for some (the app provides ‘male’ and ‘female’ voice categories), and so it is best used in combination with supportive and encouraging coaching. We usually move away from the app towards hearing and feeling the voice instead.



Christella Voiceup

A paid app for voice feminisation, providing daily practice sessions.



EvaF and EvaM

Paid apps for voice feminisation and masculinisation.



English Speaking Practice

This is a great free app for generalisation, allowing users to converse with a recorded conversation partner. It also has the capability of recording conversations so they can be listened to afterwards. Remember that recording and then listening to the voice needs to be approached with sensitivity, as it could trigger gender dysphoria.

Featured event: 32nd World Congress of the IALP

The 32nd World Congress of the IALP (International Association of Communication Sciences and Disorders) will bring together experts and practitioners in all aspects of voice, speech, language and swallowing, to Aotearoa.

This is a unique opportunity for NZSTA members to hear global perspectives alongside our own leaders, with the latest research in all the many clinical and professional threads which make up speech language therapy.

Across five days, Tāmaki Makaurau's Aotea Centre will be filled each day with six parallel sessions with scientific programmes covering our wide scope of practice.

The lively Main Reports with corresponding discussants, will feature:

- The challenges of service delivery in under-served areas
- Technological advances in the ways we assess and treat people
- Multilingualism and meeting the needs of our populations •



Dr. Georgia A. Malandraki is an Associate Professor of Speech, Language, and Hearing Sciences at Purdue University. She is also a Board-Certified Specialist in Swallowing and Swallowing Disorders and the Research Director of the Purdue I-EaT Swallowing Research Laboratory and Clinic. In addition to her primary appointment at Purdue, Dr. Malandraki will discuss emerging technologies for dysphagia, including the development and use of wearable sensors, new neuroimaging, and the implications for clinical care.

Come and hear from our main reports, followed up with expert discussants from across speech-language therapy and audiology.



De Wet Swanepoel is professor in the Department of Speech-Language Pathology and Audiology, University of Pretoria and senior researcher at the Ear Science Institute Australia.

Professor Gail Gillon, PhD (Ngāi Tahu) is the founding director of the Child Well-being Research Institute at the University of Canterbury, Christchurch, New Zealand. Prof Gillon is also the Deputy Director for the Better Start National Science Challenge, E tipu e Rea, which is a 10 year programme of research focused on children's successful early learning and healthy wellbeing.



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Please consider contributing content to *Communication Matters* about any aspect of our profession. Feel free to discuss with Emma Wollum, Editor, any ideas you have.
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