The Hopkins Centre
Research for Rehabilitation and Resilience
Bold ideas. Better solutions.
Presenter:
David Trembath
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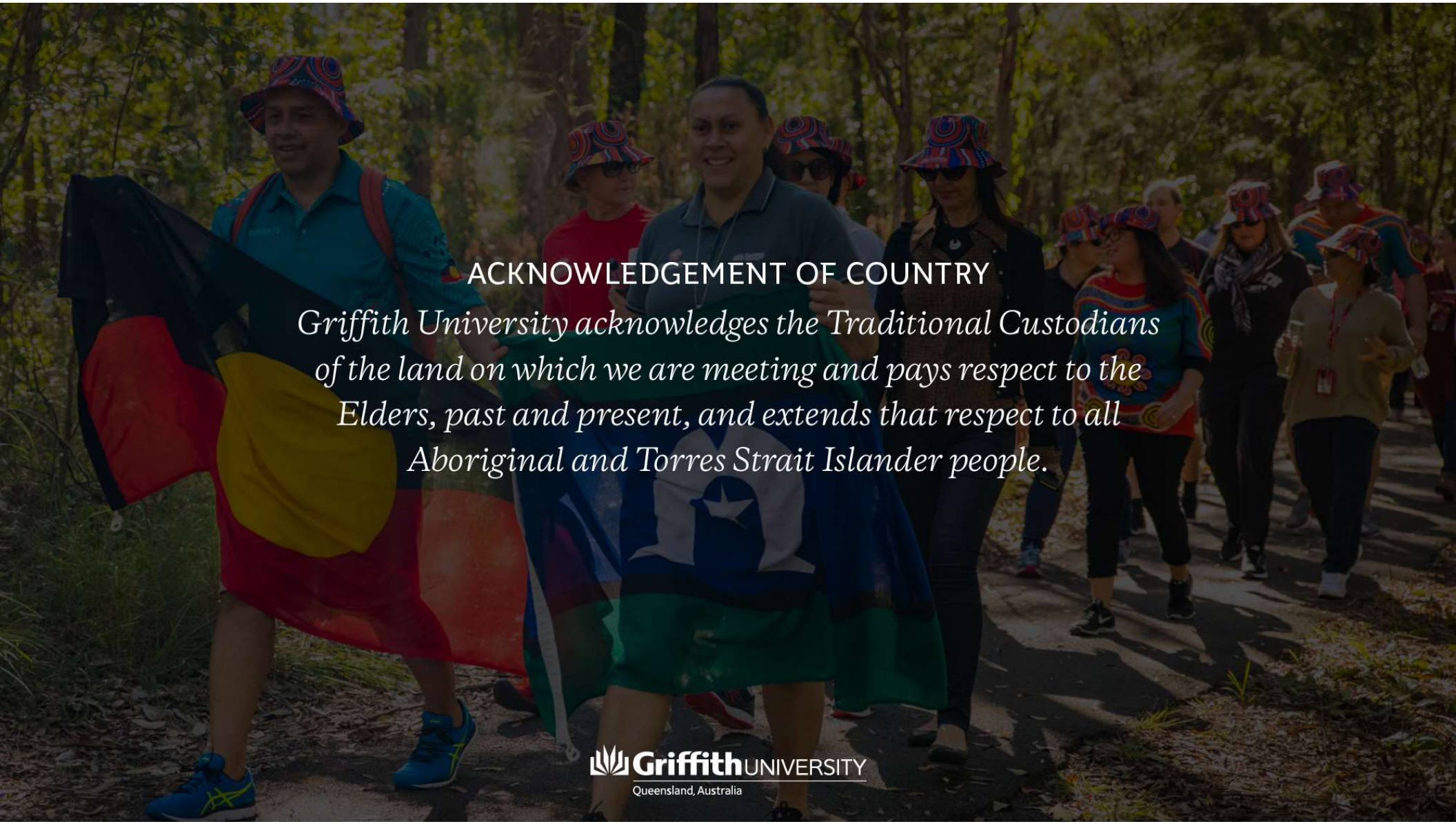
The Hopkins Centre
Research for Rehabilitation and Resilience

A decade of change in days: Building more response and resilient services for individuals with developmental disabilities and their families


ACKNOWLEDGEMENT OF COUNTRY
Griffith University acknowledges the Traditional Custodians of the land on which we are meeting and pays respect to the Elders, past and present, and extends that respect to all Aboriginal and Torres Strait Islander people.
Griffith UNIVERSITY
Queensland, Australia

Acknowledgements:

Dr Rebecca Sutherland
University of Canberra

Prof Jacqueline Roberts
Griffith University

Partner Organisation

A community, looking for bold ideas and better solutions

- ~160,000 Australian's on the autism spectrum
- Lifelong disability that impacts learning and participation
- Magnitude of need evidenced by average NDIS support package of ~$40,000 per annum

NDIS Quarterly Report (2019-20-Q2): https://www.ndis.gov.au/media/2128/download

A community, already disadvantaged by distance

In Queensland:

- 56% of all Queenslanders accessing the NDIS resided in major cities
- 13% were living in locations with populations less than 15,000.

NDIS Quarterly Report (2019-20-Q2):
https://www.ndis.gov.au/media/2128/download

Telehealth has long been considered a promising solution

Evidence (over decades) for the potential

- Systematic Review
- 14 studies (284 participants)
- Ages (19 months, adults)
- Services:
  - Diagnostic assessments
  - Early intervention services
  - Anxiety and functional behaviour assessment
- Findings:
  - Equivalent to face-to-face
  - Superior to comparison groups without intervention

International Journal of Speech-Language Pathology, 2018; 20: 324–336

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Taylor & Francis Group
Check for updates

ORIGINAL ARTICLE

Telehealth and autism: A systematic search and review of the literature

REBECCA SUTHERLAND[1], DAVID TREMBATH[2] & JACQUELINE ROBERTS[1]

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Abstract

Purpose: Research interest in telehealth and autism spectrum disorder (ASD) has grown. There is a need to review the literature to allow speech-language pathologists (SLPs) and other service providers to consider applicability to their settings. The aim of this review was to examine the nature and outcomes of studies examining telehealth assessment and/or intervention in ASD.

Method: A systematic search of the literature was undertaken, with 14 studies meeting inclusion criteria. The authors extracted information from each included article, including participant characteristics, technology used, measures and reported outcomes. Quality review of articles was undertaken.

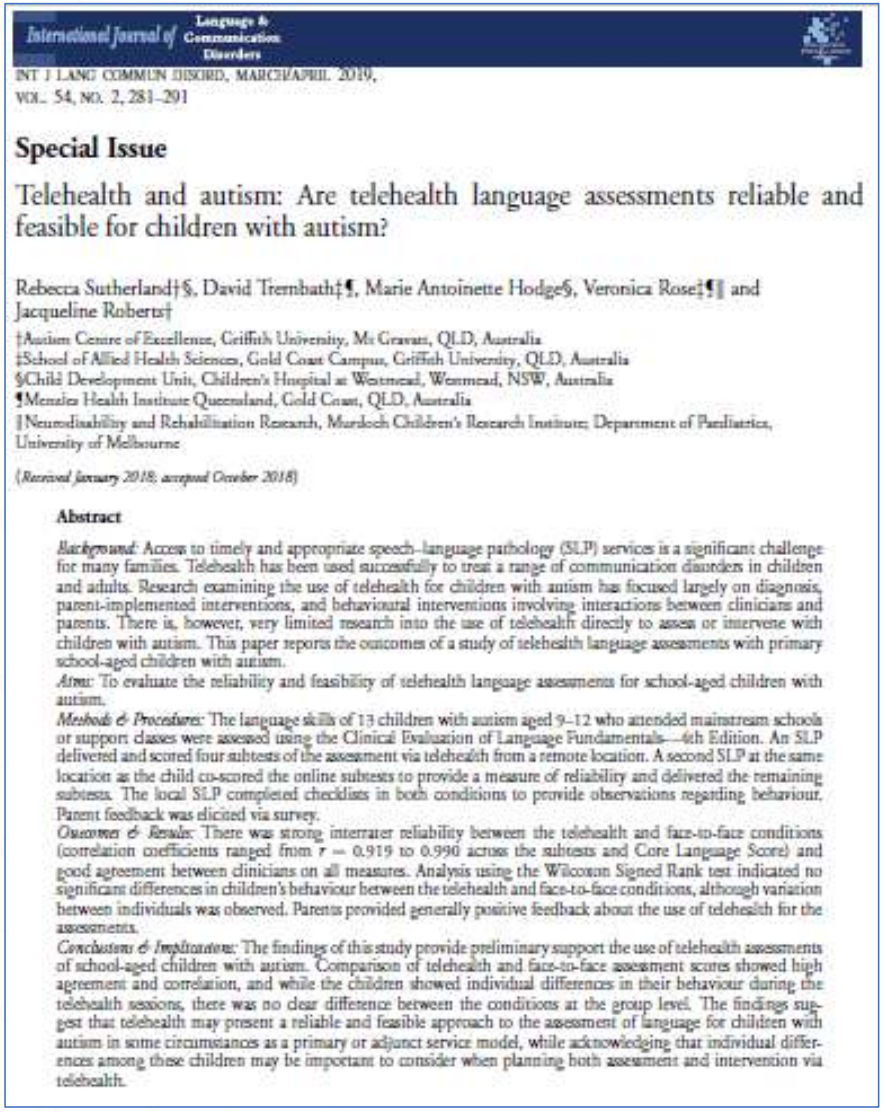
Result: The 284 participants with ASD across the 14 included studies ranged in age from 19 months to adulthood. The quality of the studies varied. A range of services were provided via telehealth, including diagnostic assessments, early intervention and language therapy. Results suggested that services delivered via telehealth were equivalent to services delivered face to face, and superior to comparison groups without telehealth sessions.

Conclusion: The findings suggest there may be a range of benefits in using telehealth with individuals with ASD, their families, and teachers. Further research, however, is required particularly regarding the use of telehealth directly with children with ASD for assessment and intervention.

Keywords: *autism spectrum disorder; telehealth; speech-language pathology*

Evidence (example)

- Aim: To evaluate reliability and feasibility of telehealth language assessments
- Method:
  - 13 children with autism (age 9-12 years)
  - Speech Pathologist delivered 4 subtests via telehealth and completed scoring
  - A second speech pathologists at the child's location also completed scoring



International Journal of Language & Communication Disorders

INT J LANG COMMUN DISORD, MARCH/APRIL 2019,
VOL. 54, NO. 2, 281–291

Special Issue

Telehealth and autism: Are telehealth language assessments reliable and feasible for children with autism?

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(*Received January 2018; accepted October 2018*)

Abstract

Background: Access to timely and appropriate speech–language pathology (SLP) services is a significant challenge for many families. Telehealth has been used successfully to treat a range of communication disorders in children and adults. Research examining the use of telehealth for children with autism has focused largely on diagnosis, parent-implemented interventions, and behavioural interventions involving interactions between clinicians and parents. There is, however, very limited research into the use of telehealth directly to assess or intervene with children with autism. This paper reports the outcomes of a study of telehealth language assessments with primary school-aged children with autism.

Aims: To evaluate the reliability and feasibility of telehealth language assessments for school-aged children with autism.

Methods & Procedures: The language skills of 13 children with autism aged 9–12 who attended mainstream schools or support classes were assessed using the Clinical Evaluation of Language Fundamentals—4th Edition. An SLP delivered and scored four subtests of the assessment via telehealth from a remote location. A second SLP at the same location as the child co-scored the online subtests to provide a measure of reliability and delivered the remaining subtests. The local SLP completed checklists in both conditions to provide observations regarding behaviour. Parent feedback was elicited via survey.

Outcomes & Results: There was strong interrater reliability between the telehealth and face-to-face conditions (correlation coefficients ranged from $r = 0.919$ to 0.990 across the subtests and Core Language Score) and good agreement between clinicians on all measures. Analysis using the Wilcoxon Signed Rank test indicated no significant differences in children's behaviour between the telehealth and face-to-face conditions, although variation between individuals was observed. Parents provided generally positive feedback about the use of telehealth for the assessments.

Conclusions & Implications: The findings of this study provide preliminary support the use of telehealth assessments of school-aged children with autism. Comparison of telehealth and face-to-face assessment scores showed high agreement and correlation, and while the children showed individual differences in their behaviour during the telehealth sessions, there was no clear difference between the conditions at the group level. The findings suggest that telehealth may present a reliable and feasible approach to the assessment of language for children with autism in some circumstances as a primary or adjunct service model, while acknowledging that individual differences among these children may be important to consider when planning both assessment and intervention via telehealth.

Evidence (example)

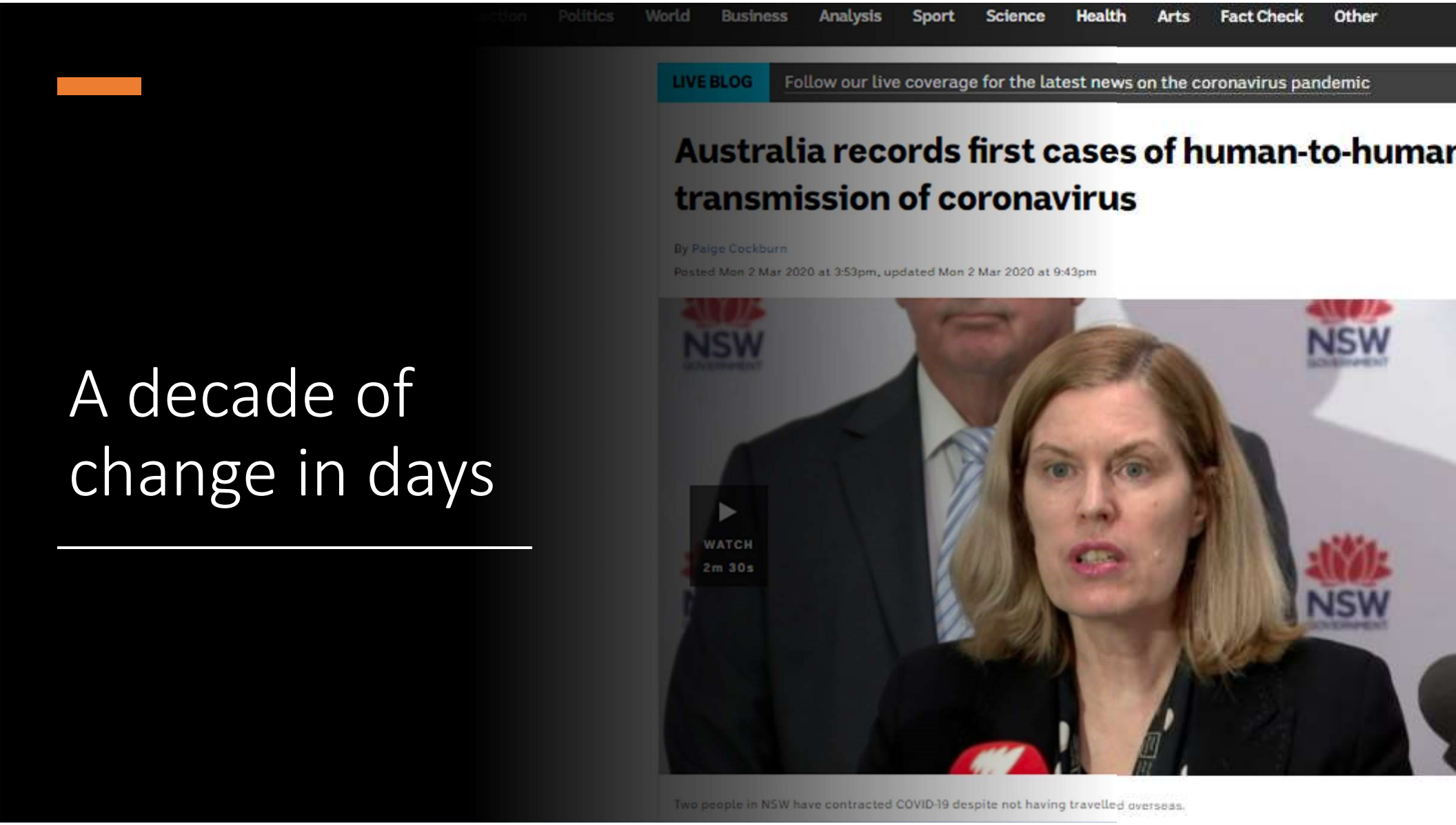
Table 2. Correlation coefficients for the Clinical Evaluation of Language Fundamentals—4th edition (CELF-4) subtest scaled scores

Test	*n*	Correlation	*p*-value
Core Language Score	13	.993	<0.01
Concepts and Following Directions	13	.967	<0.01
Recalling Sentences	13	.989	<0.01
Formulated Sentences	13	.943	<0.01
Word Classes—Total	13	.965	<0.01

Table 3. Parent comments regarding satisfaction

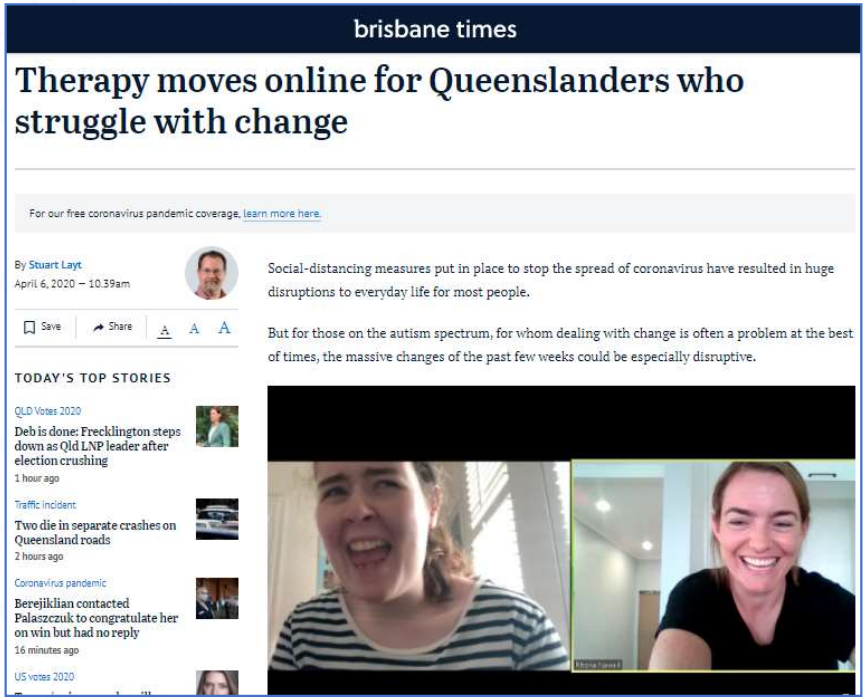
Parent number	Comment
1	Very easy assessment but very comprehensive. My son really enjoyed the whole assessment. He loves computers and telephoning friends etc. so this was a great fit!
2	Had to think when doing anything and appeared unsure, appeared nervous as well
5	I think it is great and will help a lot of people
6	Anything that gets more information about children's well-being is a must for any parents or carers
7	I think the audio was a bit poor and (child) may have been having trouble understanding, otherwise it was good
10	I think (child) particularly enjoyed participating in the assessment via the webcam
12	If no technology issues, seems as good as an in-person assessment
13	This interesting to question and answers on computer [*sic*]

A decade of change in days



Partner: Autism Queensland

- Lead agency providing services across the lifespan
- ~3,500 people accessed services in 2019
- ~300 staff
- Just over half of clients transitioned to telehealth in a matter of weeks



brisbane times

Therapy moves online for Queenslanders who struggle with change

For our free coronavirus pandemic coverage, learn more here.

By Stuart Layt
April 6, 2020 – 10.39am

Save Share A A A

Social-distancing measures put in place to stop the spread of coronavirus have resulted in huge disruptions to everyday life for most people.

But for those on the autism spectrum, for whom dealing with change is often a problem at the best of times, the massive changes of the past few weeks could be especially disruptive.

TODAY'S TOP STORIES

QLD Votes 2020
Deb is done: Frecklington steps down as Qld LNP leader after election crushing
1 hour ago

Traffic incident
Two die in separate crashes on Queensland roads
2 hours ago

Coronavirus pandemic
Berejiklian contacted Palaszczuk to congratulate her on win but had no reply
16 minutes ago

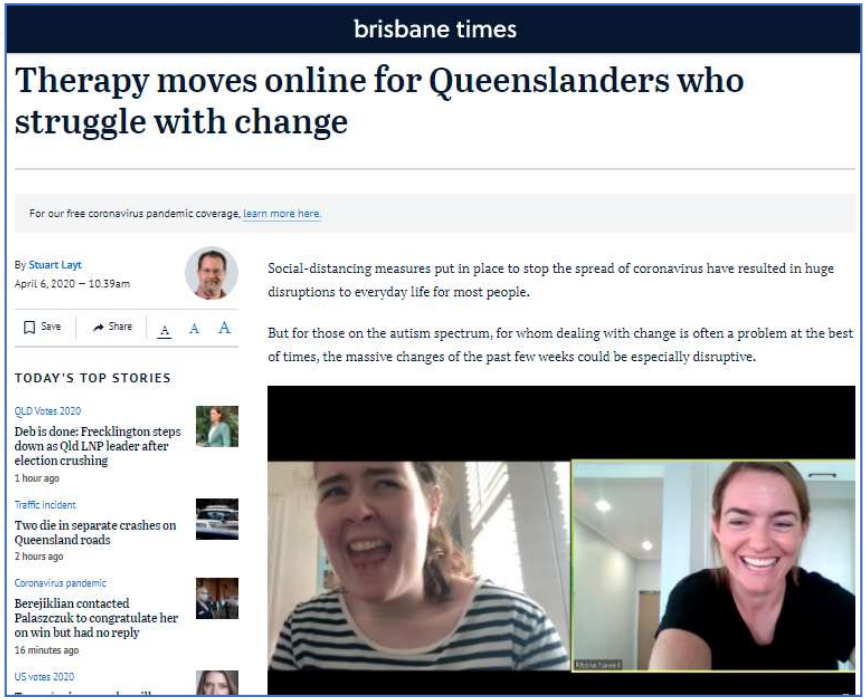
US votes 2020

https://www.brisbanetimes.com.au/national/queensland/therapy-moves-online-for-queenslanders-who-struggle-with-change-20200403-p54gum.html

Partner: Autism Queensland

"We had actually planned this year to develop teletherapy to help address our long wait-lists of people wanting to access our service. But this really sped that up. What was going to be a year-long project has become a month-long one.“

(Pam Macrossan, CEO)



Community outcomes (positive)

"Not just has this worked in terms of reducing the infection amongst people with disability… Many clients and their supporters and families are actually come to telehealth as being a preferred model of service delivery"

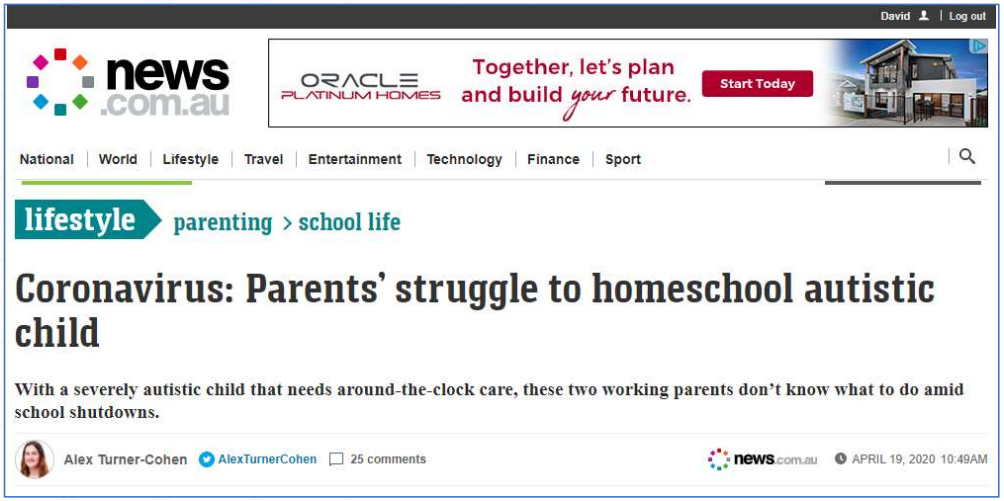
(David Moody, CEO, National Disability Services)

https://www.sbs.com.au/news/as-disability-services-adapt-to-the-coronavirus-pandemic-calls-are-coming-to-keep-the-changes-in-place

Community outcomes (negative)

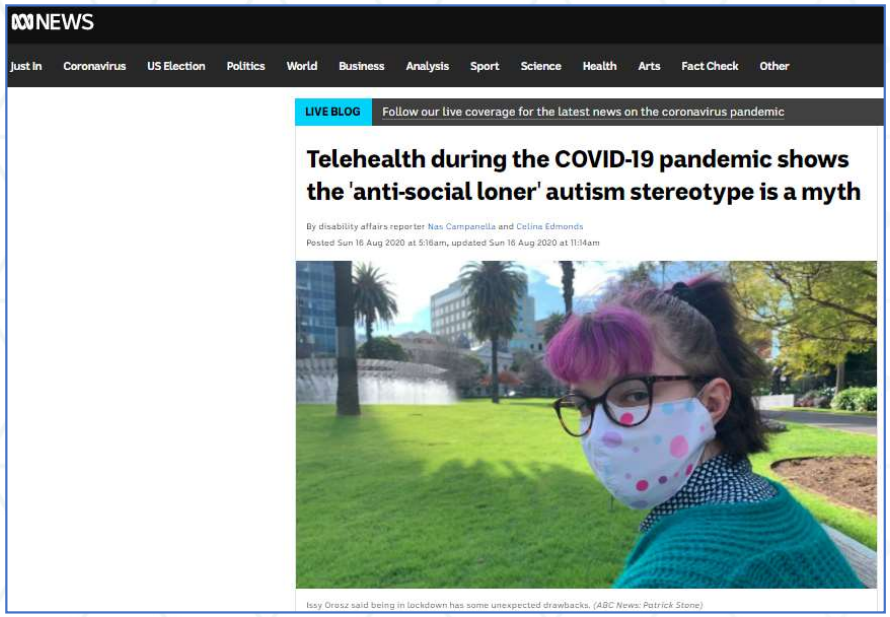
“My son can’t do therapy or school through a laptop. For him to effectively have a telehealth conference, he needs someone to sit with him and make him concentrate. So there’s an assumption that me or my wife would sit with him during those sessions. But we can’t”

(Paul Kasteel, Parent)



https://www.news.com.au/lifestyle/parenting/school-life/coronavirus-parents-struggle-to-homeschool-autistic-child/news-story/3692eeab9c4470a0936ebef204261260

Community outcomes (Mixed)

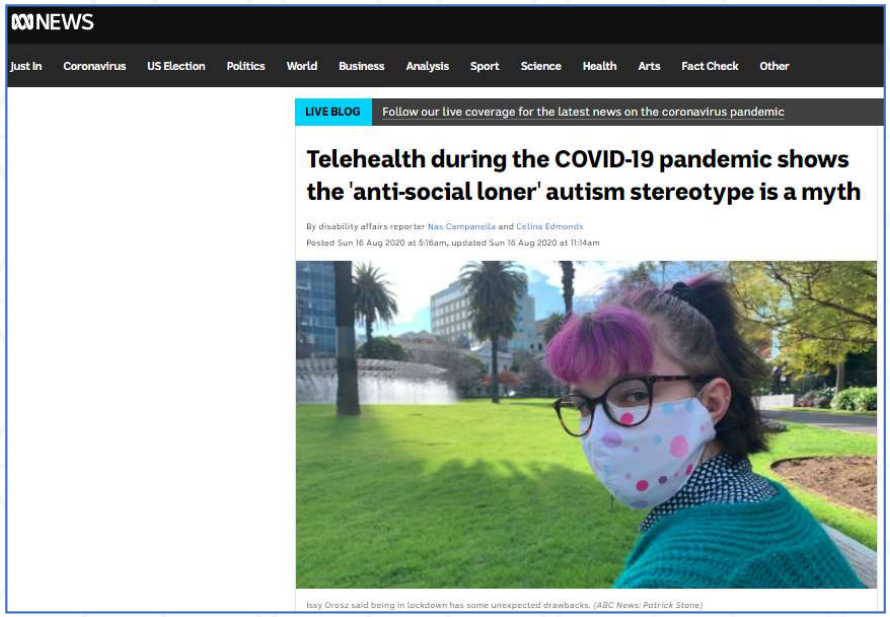


It doesn't feel like an appropriate therapy environment because I'm in the same space all the time and [it's] harder when you aren't walking into a therapist's office. It further reduced my feeling of support and my ability to healthily vent what was happening and get those extra skills and help in a time when I probably needed it more."

(Issy Orosz)

https://www.abc.net.au/news/2020-08-16/autism-in-the-covid-lockdown-struggling-with-telehealth/12555866

Community outcomes (Mixed)



"The myth, the stereotype that we are anti-social loners who would be very happy that COVID is our ideal isolation scenario, that's just not true," she said.

"Autistic people, just like everybody else, need connection, community and friends.“

(Melanie Heyworth, Autistic Researcher & Parent)

Community outcomes (Mixed)

Ebony Whitehouse and her two children. Nate, right, struggles with attention and the lack of social interaction during lockdown. *(ABC News: Patrick Stone)*

"I'm really quite anxious about sending him to school next year because he's not have the traditional transition approach."

(Ebony Whitehouse, Parent)

Community outcomes (Awareness)

brisbane times

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National Queensland Charity

Charity says internet access as vital as power, water during pandemic

For our free coronavirus pandemic coverage, learn more here.

By Stuart Layt
August 27, 2020 — 3.38pm

Save Share A A A

TODAY'S TOP STORIES

Queenslanders are being asked to donate old phones, laptops and desktop computers to ensure disadvantaged people have access to the internet and digital services during the pandemic.

The Australian Digital Inclusion Index report for 2019 lists Queensland fifth out of the seven states and territories for digital inclusion, the measure of how many people in the state have access to the internet for everyday activities.

"If you want people to connect with the GP, their psychiatrist, or psychologist, that all requires you to have a device that workable and enough data to be able to do it"

(Page Armstrong, Chief Executive, Queenslanders with Disability Network)

https://www.brisbanetimes.com.au/national/queensland/charity-says-internet-access-as-vital-as-power-water-during-pandemic-20200826-p55pmj.html

Next steps

We need to work together to:

1. Understand what has and has not worked
2. Identify and extend the most effective models
3. Ensure that policy, higher education, and workforce development are aligned with community expectations
4. Learn from and enable the experts: people living with disability themselves

Autism QUEENSLAND

Queensland Government

ADVANCE QUEENSLAND

Thank you

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@DavidTrembath

CHLD Network

Child Health, Learning, and Disability

https://www.chldnetwork.org/