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Evidence for Telehealth and People with Disabilities

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Introduction

Due to the current COVID-19 pandemic and the suspension of in-person services, telehealth has rapidly become the new service delivery model. This provides a unique opportunity for innovation in care in Australia, including telehealth's use with people with disabilities.

As we move forward, healthcare providers are closely looking at adopting hybrid models of care, combining in-person and video telehealth appointments. Drawing on learnings from COVID-19 responses in Australia and England so far, experts have recommended to include telehealth in the regular health provision for people with disability's health care during COVID-19 and beyond.[2]

A recent NDIS evaluation[2] of 2,391 clients found that 63% had transitioned to having at least one service provided by telehealth and 33% were likely to choose video telehealth services moving forward.

So what evidence exists for using telehealth for people with disabilities? The term disabilities encompases a wide range of conditions, so we have identified studies that demonstrate how telehealth has supported health care for a range of ages and conditions.

Systematic reviews

Zhou L, Parmanto B. Reaching people with disabilities in underserved areas through digital interventions: systematic review. Journal of Medical Internet Research. 2019;21(10):e12981.

A systematic review of 11 studies comprising people with developmental disabilities, mobility impairments and disability-causing disorders e.g. stroke, brain injury. Patients and caregivers had positive opinions of telehealth, reporting increased access to care and qualified practitioners, reduced wait times, and saving time and money on travelling. The majority of studies measuring goal, functional, or quality of life outcomes reported improvements.

Telehealth as a Model for Providing Behaviour Analytic Interventions to Individuals with Autism Spectrum Disorder: A Systematic Review

A systematic review of 28 studies with 307 people with autism spectrum disorder (ASD) focused on behaviour analytic interventions with adults and children. Telehealth was considered an acceptable platform for assessments and interventions. All studies found positive gains across the functional analysis and functional communication training. The authors recommended further research in this area.

Adapting existing programs for telehealth

Russell M, Donaldson C, Pleasant J, Roberts K. Using Telehealth to Adapt Service Delivery for Children during the COVID-19 Pandemic. Developmental Disabilities Network Journal. 2020;1(2):12.

This study describes how three allied health multi-disciplinary programs were adapted for telehealth delivery. The programs are for children, adults, and family members and use different assessment tools. Using telehealth, clinicians were able to make sound recommendations that were equivalent to those completed in person. Unanticipated benefits included the virtual intake sessions providing better quality information compared to the usual written information, a greater degree of family engagement, and a shift in focus to coaching the parents rather than providing therapy which resulted in greater confidence and capabilities of parents. Two programs have continued to be delivered by telehealth, despite COVID-19 restrictions lifting. The third program was less compatible with telehealth requiring patients to be examined.

Adults

Crotty M, Killington M, van den Berg M, Morris C, Taylor A, Carati C. Telerehabilitation for older people using off-the-shelf applications: acceptability and feasibility. Journal of Telemedicine and Telecare 2014 Oct;20(7):370-3

An Australian ambulatory telerehabilitation study for 55 community patients and 41 residents at 17 rural aged care facilities with multidisciplinary clinicians. A hybrid model of care with some in-person appointments substituted with telehealth appointments. There was a 50% reduction in-home visits by staff and speech therapists and double occasions of service and direct patient contact time with a reduction in travel time. Most patients achieved their anticipated or better outcomes, with the majority finding telehealth acceptable. Clinicians reported being as satisfied with telehealth compared to in-person sessions.

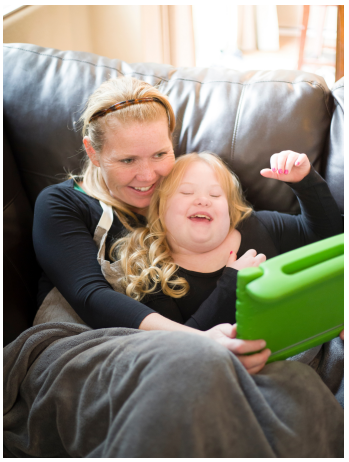
Pellegrino AJ, DiGennaro Reed FD. Using telehealth to teach valued skills to adults with intellectual and developmental disabilities. Journal of Applied Behavior Analysis. 2020 Jul;53(3):1276-89.

A small study examining the use of telehealth to teach skills to adults. Participants had intellectual disabilities, cerebral palsy, epilepsy, and anxiety and lived semi-independently. Based on their individual goals participants learnt light cooking skills and budgeting skills using Microsoft Excel. Results showed both participants met the skills' mastery criteria for their goals which were evident in a two-week follow-up session. The participants showed interest and expressed satisfaction with video telehealth sessions.

Children

Eapen V, Hiscock H, Williams K. Adaptive innovations to provide services to children with developmental disabilities during the COVID-19 pandemic. Journal of Paediatrics and Child Health. 2021 Jan;57(1):9-11.

An Australian in which the authors urge that telehealth is an opportunity to innovate new service models. Of particular interest, they highlight evidence on using telehealth with in-home video recordings for accurately diagnosing children with ASD. This would enable initial functional need assessments for children to access NDIS support, followed by more comprehensive assessments that could take place.



Lindgren S, Wacker D, Suess A, Schieltz K, Pelzel K, Kopelman T, Lee J, Romani P, Waldron D. Telehealth and autism: Treating challenging behavior at lower cost. Pediatrics. 2016 Feb 1;137(Supplement 2): S167-75.

A study comparing outcomes and costs for implementing applied behaviour analysis (ABA) to 94 young children with autism and neurodevelopmental disabilities. Three delivery models were compared: in-home therapy, clinic-based telehealth, and home-based telehealth. All models reduced problem behaviour by >90%. Home telehealth was the lowest cost model and both telehealth models cost significantly less than in-home therapy.

References

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[2]Morello R, Smith L, Lawford B, Hinman R, Bennell K. Research into Participant Experiences with NDIS Services During the COVID-19 Pandemic (Part 1).

[3]Kavanagh A, Dickinson H, Carey G, Llewellyn G, Emerson E, Disney G, Hatton C. Improving health care for disabled people in COVID-19 and beyond: lessons from Australia and England. Disability and Health Journal. 2021 Apr 1;14(2):101050.