

Exploring clinician experience with virtual care for pediatric concussion during the COVID pandemic

Arman Grewal¹, Josh Shore², Krystle Wittevrongel¹, Travis Carpenter³, Jennifer Zwicker^{1,4}

¹School of Public Policy, University of Calgary, Calgary AB; ²Rehabilitation Sciences Institute, Faculty of Medicine, University of Toronto, Toronto ON

³Department of Medicine, University of Toronto, Toronto ON; ⁴Faculty of Kinesiology, University of Calgary, Calgary AB



Background

- Access to comprehensive concussion care is limited in Canada, especially for those in remote communities¹
- Telehealth and virtual care have been recommended to increase access to concussion services across Canada²
- During the COVID-19 pandemic, many clinicians have shifted abruptly to implement virtual care
- However, there is currently very limited published literature that describes the use of virtual care for concussion management
- **Understanding clinician experience providing telehealth services for concussion may help inform strategies to support continued use of virtual care beyond the COVID-19 pandemic**

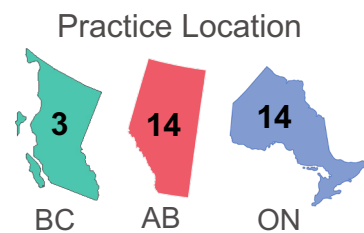
Research Objectives

1. Explore clinician experience providing virtual telemedicine or telerehabilitation services for concussion during COVID-19
2. Understand clinician perspectives about the impact of COVID-19 on recovery in youth with concussion

Methods

Participants: Physicians (n=7), Occupational Therapists (n=7) and Physiotherapists (n=4)

- 14 female, 4 male
- Primarily urban practice
- Average 12 years clinical experience in concussion



Interviews: This study is one section of a larger interview

Introduction/background

Clinical decision-making

Resource utilization

Impact of COVID-19

1. Practice changes
2. Use of virtual care before/during COVID-19
3. Advantages and Disadvantages of virtual care
4. Barriers and facilitators to virtual care

Thematic Analysis³

1. Initial reading for data familiarization
2. Deductive coding in NVivo according to major areas of inquiry
3. Inductive coding to capture participant perspectives
4. Identification of major themes based on frequency

References

1. Huot S, et al. Identifying barriers to healthcare delivery and access in the Circumpolar North: important insights for health professionals. *Int J Circumpolar Health*. (2019)78:1571385. doi: 10.1080/22423982.2019.1571385
2. Ellis MJ, Russell K. The Potential of Telemedicine to Improve Pediatric Concussion Care in Rural and Remote Communities in Canada. *Front Neurol*. 2019;10:840.
3. Maguire, Moira, and Brid Delahunt. 2017. "Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. ." *AISHE-Journal* 1 (3).

Results

Pre-COVID-19 Virtual Care Services

- 50% of participants had experience
- Most common method previously used was telephone-check-ins
- COVID-19 viewed as a "push" for the expansion of virtual care

Impact of COVID-19 on Recovery

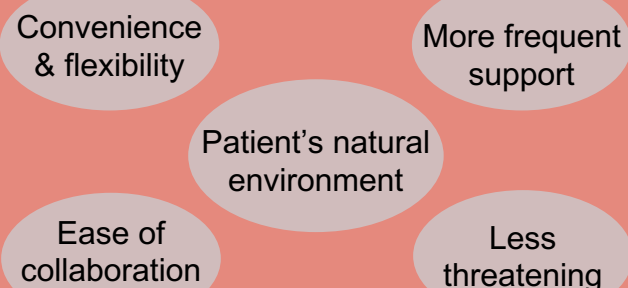
- Finding meaningful occupation in absence of school and sport
- Lack of social support during isolation
- Mental health concerns related to pandemic
- Increased reliance on screen use

Table 1: Care Platforms used by Participants

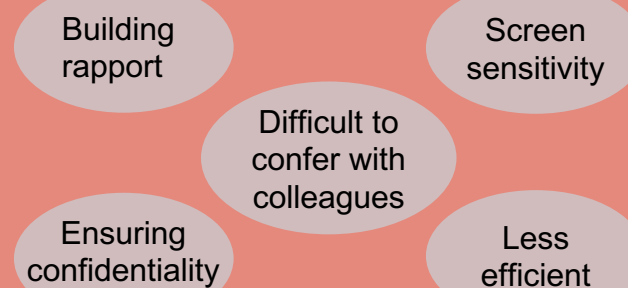
Platform	Participants
Ontario Telemedicine Network	8
Zoom Healthcare	8
Jane App	5
Telephone	5
Microsoft Teams	3

Other platforms used: Doxy.me (n=2), Google Meet (n=2), What's App (n=2), Citrix (n=2)

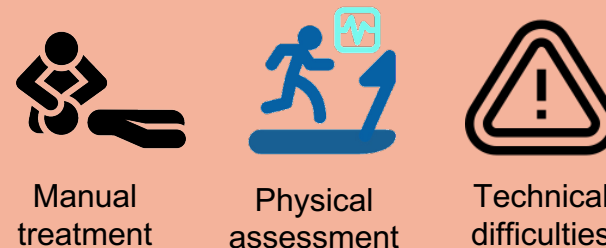
Advantages of Virtual Care



Disadvantages of Virtual Care



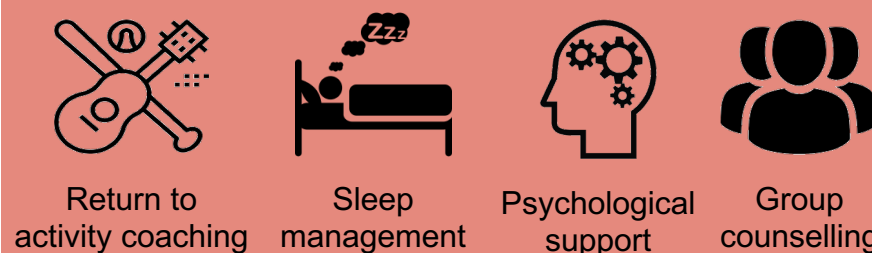
Barriers to Virtual Care



Facilitators to Virtual Care



Services Delivered Successfully Online



Desirable Virtual Features

- ✓ File sharing, downloadable content & chat history
- ✓ Sharing online resources & educational material
- ✓ Collaboration tools (e.g. screenshare, whiteboard)

44% of participants intend to continue virtual care after the COVID-19 pandemic

Recommendations

