Access, relationships, quality and safety (ARQS): a qualitative study to develop an Indigenous-centred understanding of virtual care quality

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ABSTRACT

Background Among Indigenous peoples in Canada, access to high-quality healthcare remains an important determinant of health. The shift to virtual and remote-based approaches, expedited during the COVID-19 pandemic, influenced the ways in which individuals accessed care and the quality of care received. This study sought to determine which elements are required for effective and sustainable virtual care approaches for delivery of primary care to Indigenous patients and develop quality indicators grounded in Indigenous community and experience. We share a conceptual framework to understand how Indigenous patients access and define high-quality virtual care, grounded in Indigenous patient experiences and worldviews.

Methods Using principles of patient-oriented research, we grounded this work in social justice and participatory action research. We sought to gain an in-depth understanding of the Indigenous experiences of virtual care and specifically of primary care. This was developed through semistructured interviews with Indigenous patients and Indigenous virtual primary care providers.

Results Thirteen participants were interviewed between 5 August 2021 and 25 October 2021. Using Framework Analysis, we constructed four domains including access, relationships, quality and safety as being primary facets of defining high-quality Indigenous virtual primary care.

Discussion The results presented here indicate that the shift to virtual care, largely seen in response to the COVID-19 pandemic, does not compromise quality of care, nor does it lead to negative patient experiences. Optimal care is possible in virtual settings for some care needs and types of appointments and has the potential to decrease barriers to access and improve patient experiences of safety and quality while facilitating patient/provider relationships.

Conclusion In summary, high-quality Indigenous virtual care benefits from attention to patients' experiences of access, relationships, safety and quality with their service providers and healthcare teams.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ High-quality healthcare for Indigenous peoples leads to better health outcomes. The integration of virtual primary care has allowed for continued care through COVID-19 and improved access to health services that may be of benefit long term.

WHAT THIS STUDY ADDS

⇒ The domains of access, relationships, quality and safety frame the understandings of high-quality virtual Indigenous care, grounded in the experiences of Indigenous patients.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Optimal care is possible in virtual settings and has the potential to decrease barriers to access and improve patient perceptions of safety and quality while facilitating patient/provider relationships.

BACKGROUND

Among Indigenous peoples in Canada, access to high-quality healthcare remains an important determinant of health.[1] Disparities in the provision of, and access to, healthcare services contribute to inequitable outcomes and widen the health gaps between Indigenous and non-Indigenous peoples.[1] The gaps in healthcare access and health outcomes are well documented and include reduced access to safe healthcare services, poor treatment at the emergency department and reduced life expectancy in comparison to non-Indigenous people living in Canada, to name a few.[2] Virtual care is the provision of health-related services and information using telecommunication-based technologies is one model of care that provides an opportunity to address some of the challenges related to accessing quality primary care with Indigenous peoples.[3 4] While the use of telehealth services as a virtual care model to deliver and augment primary care as the first contact of integrated accessible care is already in place for some remotely located Indigenous populations in Canada (eg, persons living

on-reserve, on Métis settlements and/or in remote or rural communities), virtual care has not been widely adopted.[3 5] This changed rapidly with the emergence of COVID-19 (SARS-CoV-2) as a novel coronavirus in late 2019. This included provision of primary care services through telephone, videoconferencing and texting[6 7] with Indigenous populations in both urban and on-reserve and/or remote or rural settings. This shift to virtual and remote-based approaches to care may influence the ways in which individuals access care and the quality of care received. Furthermore, amidst this rapid response, there is a significant gap in understanding from the perspective of Indigenous peoples and their healthcare providers of the quality and impact of virtual primary care as the first contact of integrated accessible care, and more broadly as related to primary care principles of universal access, health equity, community participation and intersectoral approaches.[5]

Existing healthcare quality frameworks exist to conceptualise high-quality care. One example is the Quadruple Aim Framework, which advocates for better patient experience, cost reduction, the advancement of public health and improvement of provider experiences with an overarching aim of enhancing healthcare systems.[8] Recently, authors have proposed the Quintuple Aim, which adds health equity as a fifth pillar of quality.[9] Although this may be helpful in undertstanding health equity in a general sense, it still adheres to western understandings of health quality and is not grounded in Indigenous understandings of high-quality healthcare. Indeed, delivering high-quality virtual care is essential to ensuring good health during a time of social and physical distancing such as that was required during the onset of the COVID-19 pandemic. Existing literature suggests that a wide variety of modalities are used for the provision of virtual primary care services with Indigenous populations suggesting receptivity to accessing care through these means. Positive experiences resulting from accessing care through telehealth included the ability to develop relationships over the phone and/or video, the opportunity to remain in their local community and the option to have family members and/or traditional healers present at healthcare appointments.[3 4] Barriers reported include having limited access to and/or familiarity with technology as well as ensuring that services are delivered in ways that are culturally safe and informed.[3 10] Clear guidance is needed for patients and care partners in how to set up and use technology that may be unfamiliar, and support with technological infrastructure also needs to be considered (ie, access to high-speed internet, etc).[11] Maintaining or increasing the frequency of contact with medical teams while enhancing the flexibility of communication modes with patients leads to better preparation for clinic appointments, and improved preappointment preparation has been shown to improve health outcomes in non-pandemic times.[12 13] We reasonably extrapolate that this would hold true during periods of public health restrictions.

While there is an anticipated role for ongoing employment of virtual healthcare beyond the pandemic, insufficient access to practitioners and lack of implementation and technological support for primary care may undermine both the capacity to provide high-quality care as well as effectively address acute concerns and pre-existing chronic conditions. As such, this study sought to establish elements required for effective and sustainable virtual care approaches for delivery of primary care to Indigenous patients. We share a conceptual framework to understand how Indigenous patients access and define high-quality virtual care, grounded in Indigenous patient experiences and worldviews.

METHODS

Informed by Indigenous ethics[14] and guided by the principles of patient-oriented research,[15] we grounded this work in and Indigenous approach to social justice and participatory action research[16] to develop an in-depth understanding of the Indigenous experiences of virtual care, and specifically primary care. This approach used an ethical framework aligned with OCAP,[17] so that the participants and community direct the work, have control over the research process, and all analyses are grounded in lived experience.[17] OCAP is a framework for ethical engagement with Indigenous peoples and includes guidance on the ownership, control, access and possession of data in order to maintain sovreignty and self-determination when working with Indigenous communities. At the outset of the project, an Indigenous reference group was formed, comprised of Indigenous community members, an Elder, and appropriate stakeholder representatives from local health services. This collaborative approach and repeated contact with Indigenous patients and providers along with the reference group ensured that those most impacted in the work had a voice throughout the entire research process. Purposive and snowball sampling were used to recruit Indigenous patients who provided detailed descriptions of their experience with virtual care.[18–21] Participants were recruited by primary care clinic staff interacting with the patient either at the time of booking an appointment and/or at the conclusion of an appointment from clinics that provide primary care services, specifically for Indigenous patients. Recruiting clinics were both virtual-only primary care clinics, and in-person clinics that had transitioned to virtual care in response to the COVID-19 pandemic. Participants were then invited to contact the study team to arrange an interview (see online supplemental appendix 1 for the interview guide). Eligible patient participants self-identified as Indigenous, lived in Alberta and had accessed virtual care services through virtual telehealth and/or web-based methods since the start of the COVID-19 pandemic (March 2020 to present). We also recruited healthcare providers if they provided virtual and/or remote services with Indigenous patients during this same time frame.

Due to pandemic-related public health restrictions, and to strive for inclusivity for those living in areas most in need of virtual care, interviews were conducted either using video conferencing software or telephone. All participants provided informed written or oral consent and were provided with an honorarium for their participation. Participants had no prior relationship with any members of the study team. Data were collected by MO and PC, both of whom had been working as research assistants within health settings for over 1 year and were provided qualitative interview and methods training by PR, a qualitative methods expert. PR and PC are both cisgender Indigenous female members of the team, and provided guidance to MO, a cisgender non-Indigenous female team member during data collection, further supported by the Indigenous reference group and the wider study team, made up of both Indigenous and non-Indigenous investigators.

Data were transcribed verbatim using a secure transcribing service and anonymised and verified before analysis began using Framework Analysis.[22] Framework Analysis takes a systematic approach to qualitative data analysis and includes five key stages: familiarisation, identifying a thematic framework, indexing, charting and mapping and interpretation.[22] A key feature of the analytic approach is the matrix output: rows (cases), columns (codes) and 'cells' of summarised data, which provide a structure in which the research can systematically reduce the data and analyse by both cases and codes.[23] This allowed the team to compare data both within and across individual cases while using NVivo[24] software to organise and manage data.

Patient and public involvement

► How was the development of the research question and outcome measures informed by patients' priorities, experience and preferences?
  – This work was grounded in participatory action research; therefore, study design and ultimate study outcomes were led by Indigenous patients.
► How did you involve patients in the design of this study?
  – We had Elder representatives on the study team who could guide us and give us feedback on the design of the study.
► Were patients involved in the recruitment to and conduct of the study?
  – We recruited patients and then returned to them for member checking and to guide the analysis.
► How will the results be disseminated to study participants?
  – We have created stakeholder reports that can be disseminated to patients who are interested.
► For randomised controlled trials, was the burden of the intervention assessed by patients themselves?
  – Not applicable.
► Patient advisers should also be thanked in the contributorship statement/acknowledgements.

  – All patient advisors have been thanked in the acknowledgments.

Table 1	Participant demographics (n=13)
Characteristic	**n**
Sex	
Male	3
Female	10
Age	
18–30	1
31–45	8
46–65	4
>65	0
Indigenous identity	
First Nations*	10
Metis	2
Inuit	0
Doesn't identify	1
Number of virtual visits	
1–5	3
6–10	3
11–15	3
16–20	2

*Denotes both physicians belonged to First Nations in Canada.

RESULTS

Participant demographics and sample size

Thirteen participants (11 patient participants and two physicians) were interviewed between 5 August 2021 and 25 October 2021 with interviews ranging from 21 min to 75 min in length with a mean length of 40 min. One interview was conducted in person (while adhering to public health social distancing measures) due to logistical challenges and patient preference, and the others were via Zoom[25] (n=3) or telephone (n=9). The patient participants included 3 men and 10 women, whose ages varied from 27 to 62 years, with a median age of 37. Indigenous identities reported were First Nations (n=8), Métis (n=2) and one participant who did not identify as being Indigenous themselves but said they were the child of an Indigenous person and, therefore, accessed the Indigenous health services. The participants expressed varying degrees of engagement with health services, with most describing a hesitancy of engagement due to travel demands or past negative experiences with the healthcare system. The number of virtual visits attended by patients ranged from 3 to 20, with a median of 10. Both physicians identified as First Nations and self-reported 8–12 years of medical practice with both Indigenous-specific and general population practices. To protect anonymity demographics are presented in table 1.

Table 2 Analysis

Descriptive indexed codes from transcripts	Framework themes	Defined domain of indigenous patient experience
Community; cost; impact on life; access to technology; travel	Time; Choice; Barriers	Access—The ability to engage in health services. Examines the structural limitations and personal factors that determine the degree to which healthcare is interacted with
Feedback; health advocate; comprehensive, respect; patience; feeling valued; passionate	Communication; Empathy; Trust	Relationships—the development of connections between patients and providers that contribute to healthcare experiences
Flexibility; convenience; person-centred; holistic	Reminders; Follow-up; Accommodation	Quality—attributes of healthcare that are regarded by patients and physicians as contributing to a high standard of care
Discrimination; trauma; privacy; reconciliation; consistency (physical safety from COVID-19)	Autonomy; Trust; Continuity	Safety—actions, policies and environments that make patients feel comfortable when engaging in care. Encompasses not only physical safety, but emotional and cultural safety

Framework analysis

Multiple initial descriptive codes were identified and indexed relating to physical access to care and indicators of high-quality Indigenous virtual care and then mapped onto the framework. Codes included access to care, relationships, barriers, time, safety, choice, follow-up, flexibility, accommodation, positive and negative experiences with clinic staff, cultural safety and communication. These codes were synthesised and charted onto larger, overarching themes and eventually grouped into four key domains related to patient experience: access, relationships, quality and safety. A summary of codes, themes and defined domains is found in table 2. It is important to note that codes and corresponding qualitative data may inform more than one domain but were grouped into the domains most meaningful to the participants and the Indigenous advisory group.

Access

The COVID-19 pandemic exacerbated the already existing complexities of access to primary care for Indigenous people. Many communities' access to care changed as in-person care closed due to public health restrictions, and as staffing changes decreased available services. Generally the transition and uptake of virtual care modalities was reported to have increased patient access to physicians and decreased wait times, despite challenges in some remote areas where quality of communications infrastructure was variable. Appointments became more responsive to patient needs, such as longer appointments for geriatric or mental health assessments. Flexibility and accommodation in scheduling and the ability for the patients to schedule appointments in a location that was private and convenient for them were appreciated by most participants.

> You can call them like any day, and you'll get to talk to someone right away. I think just the way that they talk to you. They give you good information and everything. I think that just makes you feel a lot better—participant 06.

Several participants mentioned a decrease in travel to appointments, which decreased overall patient costs, and improved flexibility for their schedules. One participant stated that the scarcity of physicians in her town led to her being referred to a virtual clinic, where she has maintained engagement for over a year. Her alternative service is located at a minimum of 1.5 hours away, with secondary and teritary care centres being a 4-hour drive away, which includes an overnight stay. She would often put off engaging in follow-up appointments and healthcare maintenance due to the complexities of travelling, accommodation costs and logistics of travelling with her two small children.

> Virtual primary care is 'a good option, especially for patients who have a harder time getting away from work. There are some [patients] who have to take the entire day off, essentially, for a 15-minute appointment. So giving that option to patients, I really appreciate because I think it's something that should've been thought of and implemented before'—participant 10 (provider).

Participants expressed the appreciation of having a choice in the method of communication with physicians, combined with the patient autonomy of choice of a video conference or telephone appointment. Prior to the pandemic, many telehealth-specific programmes still required end-to-end user engagement, where the patient travels to a health service location and is set up with the technology on site. One provider explained that many patients declined this method before the pandemic because they still had to travel and in addition had privacy concerns, but the adaptation to telephone calls and video conferencing from the patients' homes has increased engagement and access to appointments.

> So, if this goes away, then that goes back to my problems going on the back burner and I'll deal with them when I deal with them—participant 04.

Relationships

Access to an Indigenous physician, or physicians that understood Indigenous well-being was mentioned by most participants. High-quality relational interpersonal skills, compassion, empathy and listening skills were

described as very important by all participants. The relationships developed with the virtual care clinics allowed patients to trust external services they were referred to by virtual providers, and then refer friends and family members to external the services as well.

I think it's just that I trust them. I have trust in the physicians that I talk to—participant 08.

Continuity of care with a single provider was mentioned as important because restating your story and history can be 'frustrating' (participant 07). What was also reported by participants, however, was that there was a general trust in the service or clinic itself, indicating clinic continuity was important where there could not be continuity with a single provider. Advocating for the patient, suggesting appropriate health services and external referrals that are vetted by the trusted clinic/provider were also important. Participants described forming this relationship with the clinic was essential to their experiences, especially when providers may vary from appointment to appointment.

I've never had a [physician] before where I can actually really talk about like everything and … a lot about colonization and how it affects like mental health and stuff—participant 09.

Some participants expressed a preference for seeing a doctor in person at least once to establish that human connection before switching to a virtual modality. One participant noted that having to navigate a phone tree selection felt impersonal and it is important to have another person to speak with when contacting the clinic. This indicates the need for long-term planning around hybrid models of care where access can be improved through the provision of virtual care, while being aware of the importance of relationality in Indigenous healthcare.

some of our elders and communities, especially our more rural remote communities… had reservations about virtual care initially, and they didn't want it to replace our in-person, so that's why the shared model with both in-person and virtual was found to be really important to build those relationships—participant 03 (provider).

Quality

Aspects of quality care are attributed to concerns assessed and addressed to provide high-quality primary care. The ability to give feedback to the clinic as a whole and to individual providers was important to many participants, specifically to ensure the participants felt that their concerns were heard. The definition of quality in this context is in regards to the care received and experience of the clinical encounter. Safety is a distinct domain in these Indigenous contexts, as safety has a broader scope, and incorporates cultural safety.

many times patients don't feel super empowered to give feedback about their healthcare experiences…

so we serve our communities to provide care—participant 03 (provider).

Thorough follow-up from physicians and support staff was said to be an important factor in the level of engagement in virtual services. This was especially true for some participants who mentioned that having a virtual appointment sometimes brought uncertainty, such as when the physician performed a physical assessment.

[The doctor] helped me to make an informed choice about my own treatment, which was really nice. Because she involved me in that process, right?—participant 08.

The importance of checking in with patients to ensure that there were no accessibility concerns with the services recommended by virtual providers was emphasized . One participant was given a list of email addresses and websites, but she did not have access to a smartphone, so follow-up and discussions about the patient's ability to access other services become an important part of the quality of the service to the participants in this study.

….He sent the nurse, and she gave me a couple email addresses. I don't even have a tablet. And my phone is old-school—participant 02.

Safety

Participants described safety in terms of being physically, culturally and personally safe. Many participants described relief at not having to travel or visit an in-person clinic because of the risks of being exposed to COVID-19 while at in-person appointments. Patients also reported the virtual clinic as being less judgemental than many in-person doctors they had seen previously; and reported appreciating the option of choosing a male or female doctor, leading to an increased sense of patient autonomy. The virtual providers' non-judgmental nature and deep knowledge of Indigenous health led to participants feeling more 'comfortable' (participant 06). Virtual providers' awareness of Indigenous historical trauma and the ability to communicate honestly about ways to address it was important to patient perceptions of safety, with some saying that they felt they could be more honest in virtual settings.

I can't go without saying that we definitely heard people who prefer seeing us because of concerns of that they didn't necessarily feel that the care that they were receiving elsewhere was culturally safe, or they felt like they were targeted- judged because they were First Nations, and so there was some navigating of those relationships and care concerns

—participant 03 (provider).

Yeah. It does make me feel more safe. It feels like this is for First Nations, the focus is more on us. With the virtual care, they have knowledge I guess,

of Indigenous People. And they don't just have that judgment, just because I'm Native—participant 05.

I feel like they're very aware of the different challenges and health needs. And as well like, they're, they're fully aware of historical trauma, right? And they're trying to mitigate the risks that, like the risks associated with past wrongs—participant 08.

Virtual care was felt to be more private in many instances because it reduced the likelihood a patient would see someone they knew while attending a clinical area, facilitating both safety in connection and confidentiality.

We do have the clinic on reserve, where there's a doctor every two weeks. But also the privacy, right. 'Cause you know, like, it's a small community. (laughs) And then everybody knows, and are nosy. (laughs) But like, you're sitting in the hallway there, you know. You start talking to someone, and they're like, 'Oh, what are you here for?—participant 05.

DISCUSSION

The domains of access, quality, relationships and safety emerged as a result of rigorous analysis to conceptualise an understanding of high-quality virtual Indigenous care grounded in the experiences of Indigenous patients. The results presented here indicate that the shift to virtual care, largely seen in response to the COVID-19 pandemic, does not necessarily mean that the quality of care provision of healthcare has been compromised, nor has patient experience. High-quality care is possible in virtual settings and has the potential to decrease barriers to access and improve patient perceptions of safety and quality while facilitating patient/provider relationships.

While four distinct domains of experience emerged while coding the interviews, there is overlap/interplay within the characteristics/codes that make up each domain. Technological and logistical access to virtual healthcare is dependent on both access to technology such as WIFI or cellular service. Also, the need for deep understanding of colonisation as an Indigenous determinant of health[26 27] and the expectation of culturally safe care meant that the virtual models of care became more accessible from a lens that includes mental, emotional and relational factors that influence the decision to access care.[2 28] Participants felt especially impacted by caring for dependents, costs of travel and an absence of local physicians, which is often intensified in remote areas. Decreasing physical barriers to healthcare access, combined with quality indicators of flexibility, accommodation, convenience and safety indicators caused the participants to describe increased engagement, trusting relationships and improved personal health maintenance.

The process of engaging in participatory action research[16] enabled community members to describe their experiences with virtual care while also providing valuable information for the creation of a framework which will ensure future virtual care encounters are enriched by the sharing of their experiences. Patient autonomy and the perception of authentic patient-centred care were communicated by participants. Communication between patients and physicians was enhanced due to the convenience and flexibility of booking appointments and the ability to access healthcare from a safe place chosen by the participant (ie, patient's home or car), which fostered a sense of privacy, safety and confidentiality. Despite some initial hesitation in adjusting to virtual care modalities for some participants, the overwhelming response described a strengthened relationship between participants and physicians, which aligns with previous research.[3 4] The importance of developing an ongoing relationship with a clinic or regular provider was integral in participants' definition of high-quality virtual care. They described the facets of trust, empathy and appropriate interpersonal skills as important factors that led to long-term engagement with a provider. Knowledge of Indigenous history, values and understandings of wellness were communicated to be essential components in relationship building and care engagement. Participants described how providers' understanding of cultural safety and historical impacts such as residential schools and the Indian Act aligned with reconciliation in the context of health care.[29] This is especially important for providers to reflect on, given the mistrust, negative experiences and overt racism and exclusion many Indigenous people face when accessing health care[30] and the sense of safety many patients expressed in a virtual setting. Many of the characteristics described in this study are important when designing patient-centred services for the general population.[31 32] What this analysis adds is an understanding of the specific domains present in high-quality virtual care with Indigenous patients that shift that lens of patient-centred primary care to Indigenous-centred primary care. This shift creates a space for healthcare service, system and policy design on a community, rather than individual, level. Moreover, the patients' involvement in their own healthcare choices and the ability to provide feedback of their experience allow for patients to control the telling of their healthcare story. By fostering safety in virtual interactions, patient trust and engagement will further build positive relationships.

There are many strengths to this research that enhance the rigour of this work.[33] The team sustained engagement with participants to foster trust and build rapport with participants before and after the data collection interviews. Participants' direct quotes are also presented to ensure that the data are grounded in their experience, and participants were offered the opportunity to validate their interviews to enhance member checking. The team also engaged in ongoing reflexivity through keeping reflexive field journals and peer debriefing with the project team. The results of this work are expected to be transferable to other Indigenous healthcare contexts, as many are designed to serve any Indigenous patients who identify as such, and certainly, the learnings shared here

can be adapted to other regions and communities. The integration of an Indigenous advisory committee which included Indigenous community members and other scholars to review the study protocol, research plan and analysis added to the clinical applicability. This group and the study team were consulted on a regular basis to ensure that our work was representative of the broader Indigenous patient experience. The main limitation of this work is that participants were from two Indigenous-specific primary care clinics. Indigenous patient experiences of virtual care may vary by structure and model of care in other virtual healthcare settings. Indigenity was not asked for beyond a distinctions-based approach to collecting First Nations, Métis and Inuit identity, so we also caution interpreting the results as applicable to all Indigenous people to avoid pan-Indigenous constructs. However, this work endeavours to provide a broad understanding of the domains and characteristics of what constitutes high-quality Indigenous virtual primary care provision and future directions would include expanding to other jurisdictions to determine whether they are applicable to other areas and communities.

CONCLUSION

In summary, high-quality Indigenous virtual care is linked to patients' perceptions of access, relationships, safety and quality with their service providers and healthcare teams. Indigenous people experience acute and chronic illnesses at disproportionately higher rates[30 34] than non-Indigenous people andyet there is still slow progression in responding to the Truth and Reconciliation Commission (TRC) of Canada's[29] Calls to Action in Health. The Calls to Action 18-24 all address closing these health gaps and implementing concrete actions to improve Indigenous health at a systems level. An understanding of how high-quality virtual care can be provided to mitigate barriers to care is essential to improving Indigenous health in this context. Further research to improve the quality and safety of virtual healthcare should aim to build and test a patient experience tool that is useful in monitoring and receiving feedback from Indigenous patients.

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