



Why am I not seeing my high-needs patients? A qualitative study examining telemedicine perceptions and experiences of socially vulnerable households during the COVID-19 pandemic

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Abstract:	<p>Background: Early in the COVID-19 pandemic, efforts to decrease risk of viral transmission triggered an abrupt shift from ambulatory to virtual healthcare delivery. In this context, a Quebec family physician observed that many of her high-needs patients were not accessing telemedicine. This study explores the perceptions and experiences of telemedicine among socially vulnerable households with healthcare needs and recommends strategies to increase equity in telemedicine access.</p> <p>Methods: This exploratory qualitative study involved in-depth interviews with individuals belonging to socially vulnerable households whose members needed healthcare early in the pandemic. Participants were recruited from an urban food bank and primary care practice in Montreal. Interviews focused on experiences and perceptions related to telemedicine access and use.</p> <p>Results: Delays in seeking healthcare were widespread due to pressing non-health needs, and perceptions that COVID-related healthcare took precedence. When care was sought, appointment booking was a pervasive barrier due to complex online systems and administrative inefficiencies. Long wait times, missed calls, and not knowing whether an</p>

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	<p>appointment was virtual or in-person were sources of anxiety. Participants described frustration in conveying their healthcare needs or receiving recommendations virtually without the assistance of non-verbal cues, especially if they were not seeing their usual provider. Interpretation: Equitable telemedicine services must accommodate diverse needs and capacities. Potential strategies include patient education, ascertaining logistical capacities, and ensuring that a trusted provider delivers telemedicine care. Efforts to ensure digital equity, and patient and community engagement in the development and implementation of telemedicine will facilitate appropriate use and reduce the negative consequences of delayed or foregone care.</p>



Introduction

The COVID-19 pandemic provoked a rapid shift in ambulatory healthcare delivery towards telemedicine to enable healthcare access and reduce the risk of viral transmission.¹⁻³ The transition was abrupt, with accompanying challenges due to limited telemedicine-related technology and training for physicians and other healthcare workers.^{3,4} In Quebec, within the month of July 2020, an unprecedented 1.5 million telemedicine consultations occurred in Family Medicine, the large majority among physicians with no prior experience with this modality of care.⁵ Its ubiquitous uptake was accompanied by both enthusiasm and caution; enthusiasm about its post-pandemic utility in triaging and managing patients with non-urgent conditions, and facilitating access especially among remote populations,⁶ and caution regarding its clinical, organizational, professional, economic, legal and regulatory complexities including the potential of medical errors, duplication of visits, patient confidentiality, among others.⁷⁻¹⁰ In Quebec, several family doctors (IL & KM) serving high-needs, multicultural, and low-income patient populations observed their absence among those receiving telemedicine during the initial waves of the pandemic. Of concomitant concern was evidence indicating growing racialized inequities in COVID-related healthcare and health outcomes.^{11, 12} Technological, socio-economic, and cultural factors limiting access to primary care, including telemedicine, are possible explanations that require research and policy attention.¹⁰

While a substantial literature has explored physicians' perceptions and needs surrounding telemedicine¹³⁻¹⁷ and challenges of providing virtual care during the pandemic,^{4, 18-21} comparatively little attention has focused on the perspectives of patients, much less socially

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3 vulnerable patients. This study explores the perceptions and experiences of telemedicine
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5 among these individuals and their families early in the pandemic, with the aim of increasing its
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7 accessibility and appropriate use going forward.
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10 11 12 13 14 **Methods** 15

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18 **Study design:** This exploratory qualitative study consisted of in-depth interviews with
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20 individuals from socially vulnerable households needing healthcare, eliciting their perceptions
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22 of and experiences with telemedicine. The Patient-Centred Accessibility Framework by
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24 Levesque et al. (2013)²² provided initial guidance on key population and organizational
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26 dimensions of likely relevance in enabling or constraining appropriate access to telemedicine
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28 services.
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33 **Study setting and sample:** The study was conducted in Montreal, Quebec during the early
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35 waves of the COVID-19 pandemic from August 2020 to February 2021, when social distancing
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37 measures were most restrictive, and health systems were struggling to accommodate the
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39 burdens of COVID-related hospitalizations. The study took place in a COVID-19 hot spot that
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41 ranks among the most diverse neighbourhoods in Canada and the most economically
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43 disadvantaged in urban Quebec.²³ Study participants were registered with the Quebec Health
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45 Insurance Plan, and living in households in which a need for healthcare had been experienced
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47 since the onset of the COVID-19 crisis. A purposive sampling approach was employed that
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49 included individuals belonging to households whose members did or did not receive needed
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51 care for both chronic and new health problems. Variations in gender, age, years residing in
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3 Canada, and access to internet services were also captured in the sample. Eligible households
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5 were identified initially through a community food bank. Food basket recipients were screened
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7 in-person to assess eligibility and to obtain consent to be contacted subsequently for a
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9 telephone interview. The sample was supplemented by a number of high-needs patients
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11 identified by clinician colleagues working at a local hospital. Participant recruitment occurred
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13 iteratively until data saturation was achieved.
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18 **Data collection:** Pursuant to obtaining informed consent, semi-structured telephone interviews
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20 were conducted with a knowledgeable adult member of each of our sampled households. Data
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22 were collected via telephone interviews that explored healthcare needs during the pandemic,
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24 and how they were addressed during social distancing and lockdown measures. Perceptions
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26 and experiences with healthcare delivered by telemedicine and in-person care modalities were
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28 also investigated. Interviews were led by four female, graduate-level, qualitatively trained
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30 interviewers (KKAW, LGT, JCL, SL) and lasted between 30 to 45 minutes. Guidelines were
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32 loosely structured around concepts from the Patient-Centred Accessibility Framework.²² Efforts
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34 were made to accommodate the participants' preferred language with interviews conducted in
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36 English, French, or Spanish. Each interviewer took detailed notes, supplemented by an audio-
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38 recording if permission was granted. Ethical approval was obtained from the Research Ethics
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40 Committee of St. Mary's Research Centre.
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48 **Analysis strategy:** Team-based, thematic analysis was conducted using a narrative summary
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50 approach. Three analysts (KKAW, LGT, JCL) listened to digital recordings of each interview,
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52 capturing their main points in English at regular 30 second intervals. Verbatim quotes (word-
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54 for-word in English) were used for passages where the direct voice of respondents was deemed
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3 memorable and worth preserving, especially those related to healthcare experiences. A
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5 summary in English was immediately produced from these segmented transcripts and coded in
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7 Dedoose software to expedite the analysis of interviews in multiple languages.²⁴
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11 “A priori” codes aligned with the study guideline and those emerging inductively across the
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13 summaries were defined and applied systematically through the development of a shared code
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15 book. Coded data were interrogated using the Framework Method,²⁵ a form of thematic
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17 analysis that uses data displays to sort, sift and systematically examine and visualize emerging
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19 patterns and themes across respondents, categories and concepts. Regular meetings between
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21 study investigators (AMA, JH, IL, MA, KM) and data analysts (KKA, LGT, JCL) occurred to
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23 discuss new codes, themes and patterns, and their implications. Emerging findings were shared
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25 with clinician collaborators for their insights (IL, MA, KM).
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34 Results

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37 We screened 144 individuals at the local community food bank from which 36 eligible
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39 households were identified, 23 of which participated in the study. Six additional households
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41 were recruited by clinicians. Nearly half (48%) of the 29 participants were women, only 5%
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43 were Canadian-born households, and 72% reported having a family physician (Table 1). Ninety
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45 percent of the sample reported having sought healthcare since the beginning of the pandemic,
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47 70% of which was received via telemedicine. Seventy-eight percent of appointments occurred
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49 by telephone and 13% by video.
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10 Four overarching themes emerged from analysis which describe the healthcare perceptions and
11 experiences of socially vulnerable households in our sample:
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14 15 16 **1. Pandemic-related delays in seeking healthcare**

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18 Evidence of delayed care-seeking was widespread. Many participants downplayed their own
19 healthcare needs, with the intention of enabling healthcare providers to prioritize COVID-19-
20 related illness, or those with more serious healthcare needs than their own. Some reported
21 overlooking their health problems in face of competing concerns such as food insecurity and
22 childcare due to job loss and school closures, while others delayed seeking care for fear of
23 contracting COVID-19. Delays in care-seeking due to difficulties finding out how to organize care
24 during the pandemic, and hesitancy about use of telemedicine, were mentioned less, but were
25 often conveyed in a manner that indicated distress.
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38 **2. Challenges with appointment booking and logistics of encounter**

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40 Appointment booking is a pervasive barrier to care-seeking even in normal times, however,
41 during the pandemic, anxiety was heightened by not knowing what to do in the context of
42 shifting administrative practices and pandemic restrictions. Making an appointment often
43 required multiple attempts before a receptionist was reached. According to one participant, the
44 anticipated time and effort to fix an appointment further contributed to delayed or forgone
45 care:
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3 *"I could not contact the secretary. I kept on calling and calling and calling and they*
4 *kept on transferring me and there was no answer. I was so frustrated, and I was*
5 *getting angry. I don't want to book anymore."* (female, chronic health issues)
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11 As the pandemic continued, many healthcare institutions pivoted to online appointment-
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13 booking, a particularly stressful and exclusionary prospect for socially vulnerable persons
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15 lacking access to necessary technology (computer, internet, smart phone), know-how, or
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17 support.
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21 Among study participants using telemedicine, many expressed being insufficiently prepared for
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23 what to expect in the consultation. Some presented in-person, not having understood that it
24
25 was scheduled as a telemedicine appointment and were obliged to restart the appointment-
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27 booking process. Others missed calls from receptionists, often while at work, resulting in
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29 telemedicine consultations not being confirmed. In a few instances, consultations were missed
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31 altogether as patients were not forewarned that their physician would call from an unidentified
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33 number which was widely employed to protect provider and patient privacy.
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39 Significant delays in the start time of telemedicine appointments were also reported, leading
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41 many to worry that they had missed their consultation but lacking a means to check on its
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43 status. In instances of missed or delayed appointments, some participants explained how old
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45 problems had resolved or new ones had emerged by the time their appointment took place. A
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47 small number of respondents indicated unease about the lack of privacy within their household,
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49 and discomfort with telemedicine as a result.
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54 **3. Concerns about quality and continuity of care using telemedicine**

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3 Communication is a challenge in telemedicine especially among those with limited language
4 proficiency, hearing or cognitive difficulties. Among those who had experienced a telephone
5 consultation, virtually all participants expressed concerns regarding their ability to effectively
6 explain their health problems or to understand the explanations of clinicians without the
7 assistance of visual and non-verbal cues. A few respondents described their discomfort when
8 asked to perform self-examination, while others expressed a lack of confidence in their
9 diagnosis, and a sense that they “hadn’t been seen”:
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21 *“I cannot tell you the problems I have in my body, you cannot test me on the*
22 *phone.” (male, chronic health issues)*
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26 *“I prefer to see him in-person. He can say 'open your mouth', 'open this, open that'.*
27 *That's why I wouldn't trust video. I could open whatever I open, but I don't think*
28 *the doctor could see whatever he's looking at. But if he's right there in front of you,*
29 *he will see what he wants to see.” (male, chronic health issues)*
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36 In addition to reduced trust in the quality of care, lack of physical examination and focused,
37 face-to-face discussion may lead to ambivalence in following recommendations:
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42 *“I want to know everything about my health, and they can discuss more when you*
43 *are in-person. Over the phone, sometimes you're busy and they're also busy*
44 *maybe... when you have an appointment... in the office or in the clinic, you can sit*
45 *and discuss.” (recent immigrant female, chronic health issues)*
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52 Complaints regarding lack of continuity of care also surrounded the pivot to telemedicine early
53 in the pandemic. This was especially noted in teaching centres where residents were engaged
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3 to help facilitate virtual healthcare delivery. Participants noted their frustration and discomfort
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5 when telemedicine encounters were with other providers, and not their regular family doctor.
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8 9 **4. Conditional acceptance of telemedicine**

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11 Our low income and socially vulnerable study participants recognized the advantages of
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13 telemedicine in reducing potential exposure to COVID-19, and saving time and expenses related
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15 to traveling to and from healthcare facilities. They also recognized its utility for certain issues,
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17 such as minor health problems, prescription refills, and for some, mental health challenges:
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21 *"If I have nothing serious for me to see my doctor and I could just do it over the*
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23 *phone, it's completely understandable to me because they will be busier treating*
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25 *the people who are at more risk."* (recent male immigrant)
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29 However, their acceptance was conditional. For the majority, telemedicine services were
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31 considered a pandemic-specific solution, and inappropriate for complex healthcare needs or
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33 consultations that would normally require a physical examination. Even if not ideal, participants
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35 considered telemedicine acceptable in circumstances when a previous trusting relationship was
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37 established through in-person care, enabling human connection and touch. Conversely, trust in
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39 telemedicine was undermined when an established doctor-patient relationship was
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41 problematic or lacking. Several described how interpersonal conflicts (such as rudeness or lack
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43 of empathy) were exacerbated in the telemedicine encounter, or when dealing with an
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45 unknown provider:
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51 *"If I have access to the same doctor, who has my case file and is already familiar*
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53 *with me and all the appointments are follow-up appointments, as long as*
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3 *there's continuity, I don't mind having the interactions over the phone or video*
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5 *calls. But if I'm going to keep getting transferred from doctor to doctor, then no.*
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8 *No video calls and no phone calls." (female, chronic health issues)*
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16 Interpretation

19 Consistent with clinician observations of delayed or forgone care, widespread apprehension
20 regarding early pandemic healthcare-seeking was evident among socially vulnerable
21 households. Many of our participants described how pressing non-health demands related to
22 food and job security took precedence over healthcare seeking. Others explained their decision
23 to delay care-seeking as a response to beliefs that COVID-19 infection was being prioritized, and
24 that those with more urgent healthcare issues should come first.
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34 While study participants perceived certain advantages of telemedicine, most considered it a
35 pandemic-specific care delivery modality. Supporting the existing literature,^{4, 16, 17, 19-21}
36 advantages included time efficiencies related to work and travel, protection from risk of
37 infection, and its utility for routine follow-up and minor health conditions. Indeed, for socially
38 vulnerable populations, certain features of telemedicine conferred accessibility advantages
39 over in-person care. Nonetheless, participant experiences with telemedicine point to
40 appointment-booking and communication during the consultation as areas needing
41 improvement. Critiques related to appointment-booking included systems inefficiencies, lack of
42 clear messaging regarding wait time, and inadequate efforts to ensure patient readiness for the
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3 telemedicine encounter. For our socially vulnerable participants, language barriers, inflexible
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5 work schedules, and limited privacy and/or computers to access patient portals or take video
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7 calls made these challenges even more difficult.
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11 Consistent with our findings, the literature documents a range of concerns related to doctor-
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13 patient communication during the telemedicine encounter, such as patient confidentiality, lack
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15 of physical examination, and the need for an existing and trusting patient-provider relationship
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17 to assure quality and continuity of care.^{17, 21, 26-29} Many participants in our study expressed
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19 frustration at not being able to effectively articulate their health concerns in the absence of a
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21 physical examination and/or in the privacy of a doctor's office. Others perceived that the lack of
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23 face-to-face contact during telephone consultations impeded the ability of providers to
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25 appraise their needs and provide appropriate reassurance and clarification. In this regard, a
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27 strong preference was voiced for telemedicine delivered by a known and trusted provider, a
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29 finding supported elsewhere in the literature.³⁰ Lending support to the value of continuous
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31 care, a retrospective cohort study on virtual patient-provider communication found that 81% of
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33 virtual visits require no follow-up when a patient connected with their own primary care
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35 provider.³¹ Communication challenges were further exacerbated among socially vulnerable
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37 patients due to limited language proficiency, and challenges related to access to and comfort
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39 with technology. Together, these findings emphasize that clinicians be especially attentive to
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41 establishing a patient connection, exploring the patient's perspective, and clarifying key
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43 recommendations within the telemedicine encounter.^{29, 32, 33}
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53 A substantial literature has examined the potential of telemedicine in various areas of
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55 specialized healthcare.³⁴⁻³⁸ This has been supplemented by more recent research on its
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3 deployment during the COVID-19 pandemic, largely from a clinical or provider perspective.^{4, 19,}
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6 ³⁹⁻⁴¹ Comparatively lacking are studies that consider patients' perspectives and experiences with
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8 telemedicine as a modality of primary care service delivery, particularly among socially
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10 vulnerable groups.⁴² This is partly due to Canada's slow adoption of telemedicine prior to the
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12 pandemic, with most provision occurring in the private sector.⁴³ This study fills this gap by
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14 eliciting the perspectives of high need populations whose diverse social realities may hinder
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16 access to care. Study findings emphasize that equitable primary healthcare services delivered
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18 by telemedicine must accommodate the needs and capacities of people with a wide range of
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20 ethnocultural, linguistic, generational, and socioeconomic circumstances. Strategies may
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22 include patient education about the appropriate use of telemedicine services, ascertaining
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24 patient capacities to receive a telemedicine call, and ensuring that a trusted provider delivers
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26 telemedicine care and necessary actions to improve equity.^{17, 44} Efforts to include patients'
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28 voices in the development and implementation of telemedicine are also important to facilitate
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30 appropriate use and reduce the negative consequences of delayed or foregone care.
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41 Limitations

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44 In the context of COVID-19 social distancing and containment measures, several adaptations
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46 were required that may have biased results. First was our use of telephone interviews,
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48 effectively excluding the participation of persons without access to a telephone or unlimited
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50 calling minutes and diminishing opportunities for human connection. Conducting interviews by
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3 telephone also inhibited the observation of non-verbal cues essential to probing or
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5 interpreting our interviewees' narratives and the contexts in which they were being shared.⁴⁵
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10 11 Conclusions

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15 The pandemic triggered the use of telemedicine as a recognized modality of primary care in
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17 Canada. It also amplified access inequities among those lacking resources or agency to demand
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19 quality telemedicine care. To enable telemedicine access, underserved and diverse
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21 communities should have meaningful representation in telemedicine design, implementation
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23 management and evaluation to ensure its effectiveness, relevance, and appropriate use.⁴⁶ Clear
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25 parameters of quality must also be established based on evidence and best practice⁴⁶ with a
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27 strong emphasis on actions to promote digital equity.^{47, 48} This includes facilitating informed
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29 patient choice, supporting digital literacy and access to technology, ensuring necessary clarity
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31 and support around the logistics of appointment-making and the consultation itself, and
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33 providing care that is trusted and understood. Our findings clarify that telemedicine has the
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35 potential to exacerbate or alleviate access barriers for certain patients and for certain services
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37 depending on how it is implemented and supported. However, if appropriately utilized, the
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39 integration of telemedicine in primary care may enhance the delivery of patient-centric and
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41 quality services for socially vulnerable and equity-deserving populations.
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Characteristics		n (%)
Sex	Female	14 (48%)
	Male	15 (52%)
Age Category (interviewer impression)	Younger	6 (21%)
	Middle-aged	15 (52%)
	Older	8 (28%)
Immigrant Status	Canadian-born	5 (17%)
	Immigrant <10 yrs	8 (28%)
	Immigrant >10 yrs	15 (52%)
	N/A	1 (3%)
Family Structure	Single Person	16 (55%)
	Nuclear Family	11 (38%)
	Other	2 (7%)
Access to Internet	Yes	22 (76%)
	No	4 (14%)
	N/A	3 (10%)
Family Physician	Yes	21 (72%)
	No	8 (28%)
Type of health need	Acute	7 (24%)
	Chronic	14 (48%)
	Chronic & Acute	7 (24%)
	N/A	1 (3%)
Received Healthcare	Yes	26 (90%)
	No	3 (10%)
Used Telemedicine	Yes	20 (69%)
	No	6 (21%)
	Family Member	1 (3%)
	N/A	2 (7%)
Type of Telemedicine used	Telephone	18 (62%)
	Video	3 (10%)
	N/A	2 (7%)
	Did Not Use Telemedicine	6 (21%)

Table 1

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

No	Item	Guide questions/description	
Domain 1: Research team and reflexivity			
Personal Characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	p.3
2.	Credentials	What were the researcher's credentials? <i>E.g. PhD, MD</i>	Title page
3.	Occupation	What was their occupation at the time of the study?	Title page
4.	Gender	Was the researcher male or female?	All female p.3
5.	Experience and training	What experience or training did the researcher have?	Graduate level p.3
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	Recruited through trusted food bank p.3
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? <i>e.g. personal goals, reasons for doing the research</i>	In consent p. 3
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? <i>e.g. Bias, assumptions, reasons and interests in the research topic</i>	In consent p. 3
Domain 2: study design			
Theoretical framework			
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? <i>e.g. grounded theory, discourse analysis,</i>	Framework method – form of

No	Item	Guide questions/description	
		<i>ethnography, phenomenology, content analysis</i>	thematic analysis p. 3-4
Participant selection			
10.	Sampling	How were participants selected? <i>e.g. purposive, convenience, consecutive, snowball</i>	Purposive p. 2-3
11.	Method of approach	How were participants approached? <i>e.g. face-to-face, telephone, mail, email</i>	Face to face and telephone p. 3
12.	Sample size	How many participants were in the study?	29 p. 4
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	13 p. 4
Setting			
14.	Setting of data collection	Where was the data collected? <i>e.g. home, clinic, workplace</i>	Telephone p. 3
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	Unknown p. 3
16.	Description of sample	What are the important characteristics of the sample? <i>e.g. demographic data, date</i>	p. 4
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	p. 3
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	N/A
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	Audio p. 3
20.	Field notes	Were field notes made during and/or after the interview or focus group?	Yes p. 3

No	Item	Guide questions/description	
21.	Duration	What was the duration of the interviews or focus group?	35-40 minutes p. 3
22.	Data saturation	Was data saturation discussed?	Yes p. 3
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	No
Domain 3: analysis and finding			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	Three p. 4
25.	Description of the coding tree	Did authors provide a description of the coding tree?	Framework analysis p. 4
26.	Derivation of themes	Were themes identified in advance or derived from the data?	Both p. 4
27.	Software	What software, if applicable, was used to manage the data?	Dedoose p.
28.	Participant checking	Did participants provide feedback on the findings?	No
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? <i>e.g. participant number</i>	Participant description used.
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	Yes
31.	Clarity of major themes	Were major themes clearly presented in the findings?	Yes
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Yes