




BMJ Open Chronic conditions patient's perception of post-COVID-19 pandemic teleconsulting continuation in primary care clinics: a qualitative descriptive study

Marie-Eve Poitras ^{1,2}, Marie-Dominique Poirier,² Yves Couturier ³,
Vanessa T Vaillancourt ^{1,2}, Caroline Cormier,^{1,2} Gilles Gauthier,² Sylvie Massé,²
Audrey Gendron,¹ Megan L Oswick,¹ Anaelle Morin,¹ Patricia Blanchette,¹
Andréanne Bernier⁴

To cite: Poitras M-E, Poirier M-D, Couturier Y, *et al.* Chronic conditions patient's perception of post-COVID-19 pandemic teleconsulting continuation in primary care clinics: a qualitative descriptive study. *BMJ Open* 2022;**12**:e066871. doi:10.1136/bmjopen-2022-066871

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2022-066871>).

Received 21 July 2022

Accepted 17 November 2022



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

Correspondence to
Dr Marie-Eve Poitras;
Marie-Eve.Poitras@
USherbrooke.ca

ABSTRACT

Objectives The COVID-19 pandemic has led to the prioritisation of teleconsultation instead of face-to-face encounters. However, teleconsultation revealed some shortcomings and undesirable effects that may counterbalance benefits. This study aims to explore the perspective of patients with chronic diseases on teleconsultation in primary care. This article also proposes recommendations to provide patient-oriented and appropriate teleconsultations.

Design We conducted a qualitative descriptive study that explored the patients' perception regarding teleconsultation services and the following themes: access, perceived benefits and disadvantages, interprofessional collaboration, patient-centred approach, specific competencies of professionals, and patient's global needs and preferences.

Setting Six primary care clinics in three regions of Quebec.

Participants 39 patients were interviewed by telephone through semistructured qualitative interviews.

Results Patients want to maintain teleconsultation for the postpandemic period as long as their recommendations are followed: be able to choose to come to the clinic if they wish to, feel that their individual and environmental characteristics are considered, feel involved in the choice of the modality of each consultation, feel that interprofessional collaboration and patient-centred approach are promoted, and to maintain the professionalism, which must not be lessened despite the remote context.

Conclusion Patients mainly expressed high satisfaction with teleconsultation. However, several issues must be addressed. Patients do and should contribute to the implementation of teleconsultation in primary care. They wish to be frequently consulted about their preferred consultation modality, which may change over time. The patient perspective must, therefore, be part of the balanced implementation of optimal teleconsultation that is currently taking place.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This article presents field data that reports patients' experiences and perceptions of teleconsultation in primary care.
- ⇒ Our partnership and patient-oriented research approach ensures that the data presented emerge from patients' concerns.
- ⇒ The patients' satisfaction high rate with teleconsultation could have been influenced by acquiescence and desirability emotional bias.
- ⇒ Patients' recommendations for continuing teleconsultation services after COVID-19 were not differentiated by health condition, which should be considered when interpreting the results.

INTRODUCTION

Since March 2020, public health measures adopted in several countries in response to the COVID-19 pandemic have led to the prioritisation of teleconsultation over face-to-face services in primary care health organisations. Teleconsultation is any interaction between a patient and a healthcare professional that takes place at a distance and uses some form of information technology (eg, virtual approaches via videoconferencing through Zoom, Teams and Reacts) or communication (eg, telephone, email and send and receive text (SMS)).¹ Although teleconsultation had been used sporadically worldwide, the COVID-19 health crisis led to major advances in the deployment and use of this mode of intervention in several primary care clinics.^{2 3} These primary care clinics propose health and social services provided by general practitioners working closely with other health and social services



professionals, such as nurses and social workers.⁴ Innovations' spreading requires time sensitive key elements, and it can typically take up to a decade to cross, successfully or not, the adoptions' classic five steps in real life.⁵ Yet under the pandemic time shortage, the teleconsultations broadcast was hastened, and their promotion-to-adoption journey most likely did not get the time to fulfil that theoretical framework. Given so, in the pandemic period,^{6–8} the use of teleconsultation faced some shortcomings and undesirable effects.^{9–14} As such, the number of inappropriate visits to emergency departments has reportedly increased in the province of Quebec, given that some teleconsultation-users patients got to have a physical exam (eg, auscultation), ending up in the emergency room. In reality, the majority of emergency rooms' visits were related to minor problems that could have been treated by a family physician or primary care teams.¹⁵ This mode of care restricts access to services for people with limited mobility, limited access to the Internet or teleconsultation tools, or low levels of digital literacy.^{12–16} These undesirable effects may counterbalance the positive effects of teleconsultation demonstrated in the scientific literature.¹⁷ Given that teleconsulting will remain, at least in part, a regular practice of healthcare professionals and patients after the COVID-19 pandemic,^{18–20} it is essential to consider the patients' perception. Regarding this fast overview, the teleconsultation allows for a better trade-off between the high potential for the patient experience or health improved and the adverse effects of this technical innovation.

In the past year, various recommendations have been published to support good practice in teleconsultation.^{2–21–22} These recommendations are highly useful in supporting healthcare professionals towards proper implementation of teleconsultation in healthcare settings between a patient and a clinician from an intraprofessional and clinician-centred perspective. However, they may be incomplete as they need to consider the needs, preferences and general representation of patients living with chronic diseases concerning teleconsultation. Furthermore, the tools supporting teleconsultation are built from a clinician's perspective without integrating the patient's perspective.

Some authors explored the factors related to a positive experience (or not) of care in teleconsultation from the perspective of patients,^{23–28} but very few focused on patients with chronic diseases in primary care.^{29–30} In addition, patient-led studies incorporating the concept of patient-oriented research are rare. Since few scientific recommendations have been identified on teleconsultation for professionals working in primary care clinics and considering that patients with chronic illnesses are those who consult family medicine practices most frequently,³¹ we propose that they are in the best position to testify to the experience of teleconsultation in primary care. As the desire to sustain teleconsultation in primary care takes hold, it seems essential to incorporate the patient perspective during this rapidly accelerating phase of innovation

about teleconsultation. To do so, our study, co-led by two patient partners, has the following two objectives: (1) to explore the perspective of patients with chronic diseases on the teleconsultation offered in primary care clinics and (2) to make general recommendations regarding the postpandemic adequacy between the teleconsultation offer and the needs and expectations of patients with chronic diseases.

METHODS

We conducted a collaborative³² longitudinal qualitative descriptive study³³ with two data collection periods³⁴ in six primary care clinics located in three regions (metropolitan, urban and semiurban) of Quebec, Canada. These primary care clinics are funded by public funds³⁵ being defined as family physicians group working together and in close collaboration with other health and social services professionals (eg, registered nurses, social workers, nurse practitioners).⁴ Teleconsultation is offered here in various modalities, including email, chat, telephone and video, through various applications (FaceTime, Zoom, Microsoft Teams, etc). Modalities can be used alone or in combination. Some clinics got these features belt into an electronic medical record. We have used the Consolidated criteria for reporting qualitative research (COREQ) self-assessment grid for qualitative studies to report on this project's accuracy and methodology.³⁶

Patient and public involvement

The research was co-led by two patient partners, two researchers and one decision-maker. The patient and clinical coleaders supported the researchers in carrying out the project according to the partnership methodologies guided by the Canadian Institutes of Health Research³⁷ and our team's previous work.³⁸ One of the patient coleaders had concerns about teleconsultation in primary care, and the original research idea emerged from there. Both patient co-leaders collaborated on each step of this study, and their contribution is detailed in further sections. As coauthors, they have also revised the manuscript and provided feedback to enhance it.

Sample

We built a convenient sample of 49 registered patients from the Training of Trainers in Primary care (F2PL) study,³⁹ who were assessed by phone by the patient co-leaders or by a research agent. These patients are persons living with chronic diseases, followed by family physicians in a primary care clinic and, sometimes, in collaboration with a clinical nurse and/or a social worker.

Data collection

A research team member first contacted patients during the first wave of the COVID-19 pandemic, between March and August 2020, to ask them about their experience with teleconsultation. This initial data collection highlighted

patients' needs for teleconsultation services, and results were published elsewhere.³⁴ Between February and March 2021, we further explored this question by examining, among other things, patients' representations of pursuing teleconsultation, reasons for consultations conducive to teleconsultation, the impact of teleconsultation on inter-professional collaboration, as well as the use of patient centred care approach. We conducted semistructured qualitative telephone interviews (online supplemental appendix 1: Interview guide) lasting approximately 30 min in February 2021 by three research professionals (CC, PBe, AB), three graduate nursing students (AM, AB, PBl), as well as one patient co-leader (M-DP) after a training provided by both principal coinvestigators, M-EP (junior) and YC (senior). We audio recorded the interviews with the consent of the study participants. We have taken field notes during each interview to enrich data analysis.

Analysis

We performed qualitative analysis according to three concurrent streams: data condensation (eg, selection, transformation of raw data), data display (eg, narrative text, table, matrix) and verification of conclusions (eg, go back to field notes for each patient, discussion with the research team).³³ We conducted a deductive thematic analysis³³ of the interview data based on the themes explored by the interview guide, which are, in relation to teleconsultation: satisfaction with the services received, interprofessional collaboration, the inclusion of significant relatives in care, digital literacy of patients, soft skills and attitudes of professionals, valuing experiential knowledge in shared decision making. Then, we, including a patient co-leader, determined the themes related to the teleconsultation context. We explored the following seven themes: (1) access to primary care clinics services during a pandemic; (2) advantages and disadvantages of teleconsultation compared with face-to-face encounters; (3) interprofessional collaboration; (4) healthcare professionals' competencies specific to teleconsultation; (5) the patient centred approach to care; (6) avenues for improving measures of patients' perceptions of their care experience⁴⁰ and (7) patients' needs and preferences during a teleconsultation. All research team members collaborated on the coding identification and created a Microsoft Word template to display the data and organise the text for the next step of the analysis. We performed a live encoding that allows for simultaneous manual coding while listening to the audio recording. This method is beneficial to preserve the participants' voice, thus empowering the process to sense the intent, context, and meaning of their words.⁴¹ Patients coleaders in this project favoured this method over the transcript coding because they felt they understood more of what the participants wanted to express. The interviews' encoding was made by at least two research team members, using Microsoft Word software. The principal investigators (M-EP and YC) and patient co-leader (M-DP) validated

all the encodings one by one. We had all data analysed, and the conclusions were discussed in a meeting with all research team members, leading to the extraction of proposals and recommendations reported in the present article.

RESULTS

Participants

Of the 49 participants initially recruited for the F2PL study, 39 agreed to participate in this study, 6 were unreachable and 4 declined to participate. [Table 1](#) presents the participants' sociodemographic characteristics, and [table 2](#) their medical and psychosocial conditions.

Analysis of the interview data allowed us to develop recommendations based on the participants' perspective. Additional verbatims to support each of the findings are presented in [table 3](#).

Findings

Through this unique perspective of experiential knowledge, we aim to promote the continuity and adequacy of teleconsultation services offered in primary care clinics following the pandemic (online supplemental appendix 2 Patients' 10 recommendations for continued teleconsultation after the pandemic).

Considering its many advantages, the end of the pandemic must allow the improved continuity of teleconsultation services

According to the participants, teleconsultation brings its own set of benefits. As expressed by the patients interviewed, the savings in time and money are significant for routine clinical follow-up needs. In addition to the financial aspect, teleconsultation is also advantageous from an organisational point of view since it saves time. One patient mentioned that a teleconsultation lasting approximately 15 min, saves him quadruple and more the time. This patient explained that the absence of travel allowed him to spend less time on his consultation in a primary care clinic. In addition, many patients reported not having to ask their employer to be released from work, not having to deal with unexpected road conditions (traffic jams, winter driving), losing time to find a parking space and waiting several minutes in a waiting room. For patients with young children or other family responsibilities, teleconsultation facilitates family logistics. However, this desired continuity must be accompanied by a review of the adverse effects of consultation. For example, teleconsultation must not delay the consultation process to emergency services or minimise the importance of inter-professional collaboration.

Face-to-face consultation must take precedence over teleconsultation when a physical examination is required

During the pandemic period, some patients received teleconsultation services for which they would have preferred to be seen in person and for which certain concerns persisted after the meeting: 'By telephone, it wasn't easy,

Table 1 Sociodemographic characteristics of the study participants

Characteristics	Patients (N=39) n (%)
Sex	
Male	16 (41)
Female	23 (59)
Age (mean=60.5)	
<30	0 (0)
31–40	5 (13)
41–50	3 (8)
51–64	17 (43)
65+	14 (36)
Marital status*	
Married/common-law partner	31 (80)
Single	3 (8)
Separated/divorced	4 (10)
Highest level of education	
Primary/high school	10 (25)
Professional/college	18 (46)
University	10 (25)
Employment status*	
Working	14 (36)
Work interruption	7 (18)
Retired	15 (38)
Other	2 (5)
Income (\$C)†	
(\$C0–\$C29 999)	7 (17)
(\$C30 000–\$C59 999)	14 (36)
(\$C60 000–\$C99 999)	9 (23)
≥\$C100 000	5 (13)
Location	
Metropole	10 (26)
Rural	15 (38)
Urban	14 (36)
Healthcare provider before COVID-19	
Family physician	6 (15)
Family physician and nurse	16 (41)
Family physician and social worker	12 (31)
Family physician, nurse and social worker	5 (13)
*Data missing for one patient	
†Data missing for four patients.	

I would have liked the doctor to look at my knee, she asked me if it was swollen. I couldn't see if it was swollen' (pt # 202-5-007). If a patient has a health condition that requires visual examination or auscultation by the clinician, an in-person consultation should be encouraged.

Table 2 Medical and psychosocial conditions of the study participants

Medical and psychosocial conditions	Patients (N=39) n (%)
Type*	
Diabetes	13 (33)
Arterial hypertension	11 (28)
Personal issues	6 (15)
Difficulties adapting to situations	5 (13)
Mental health issues	6 (15)
Coronary artery disease	5 (13)
Cancer	4 (10)
Asthma	3 (7.5)
Relationship issues	4 (10)
Suicidal thoughts	1 (2.5)
Bereavement	1 (2.5)
Chronic obstructive pulmonary disease	1 (2.5)
Professional issues	5 (13)
Other	15 (38)
No of conditions	
1	18 (46)
2–3	14 (36)
≤4–5	7 (18)
*Not mutually exclusive.	

Consider the reasons for consultations and the individual and environmental characteristics of the patient to decide on the appropriateness of a face-to-face consultation or teleconsultation. The patient's reason for consultation must be considered when making the decision to offer a face-to-face or remote encounter. Indeed, certain reasons for consultation make patients uncomfortable when they must discuss them during a teleconsultation, such as consulting for a mental health-related reason or for one that has emotional components. For example, addressing weight gain over the phone can be difficult for some patients: 'I gained weight, but I don't want to talk about my weight. I gained weight, but she, the doctor, didn't see me. It's something that affects me too much to talk about on the phone' (Pt # 202-5-007). When dealing with potentially sensitive issues for patients, a face-to-face meeting should be preferred. The reasons for consultation reported by the patients and which lend themselves well to teleconsultation include: the follow-up of stable chronic conditions, the transmission of test results when they announce good news, or the renewal of prescriptions. These verbatims capture the possible motives: 'When the results are nothing serious, give them to me by phone...' (Pt # 302-5-005). 'It can be done in teleconsultation if it's just to renew, there's no problem' (Pt # 301-5-002).

Individual characteristics must also be considered when deciding on the best consultation mode. In some

Table 3 Recommendations of patients living with chronic diseases regarding the continuity of teleconsultation after the COVID-19 pandemic

Recommendations	Verbatims	Participants identification
Considering its many advantages, the end of the pandemic must allow the continuity of teleconsultation services	<i>"I don't have a driver's license; I don't have a car. So, I don't have to travel "It suits my needs [teleconsultation], because I don't have to spend money on gas"</i>	101-5-001
Face-to-face consultation must take precedence over teleconsultation when a physical examination is required	<i>"I had sores on my face, on the phone, it was more difficult"</i>	302-5-003
Consider the reasons for consultations and the individual and environmental characteristics of the patient to decide on the appropriateness of a face-to-face consultation or teleconsultation	<i>"Anything that has to do with social relations, when there's a lot of explaining or emotional issues...I think face-to-face would be much easier"</i>	202-5-001
	<i>"My husband is deaf. The telephone consultation is not ideal. I absolutely have to make time to accompany my husband during phone meetings because he is not able to do it alone"</i>	102-5-004
	<i>"I don't have internet...computers, internet, I don't know that..."</i>	101-5-010
Involve the patient in choosing the consultation mode for each encounter	<i>"In my case, I don't have a relationship with my family doctor, I don't need to have one either. I'm not looking for that. If I needed a consultation with a social worker, I'd like it to be face to face because I'm looking more for the relationship"</i>	202-5-001
Explain to the patient how the interprofessional dimension will be addressed	<i>"I don't know what the difference is between the nurse and the nutritionist"</i>	301-5-001
	<i>"They(social worker, doctor, and nutritionist)write to each other every time I have a meeting. They know everything"</i>	302-5-003
Intervene according to the care approach in partnership with the patient in teleconsultation	<i>"My healthcare professional asks questions and is interested in my problem, I don't perceive any change in his or her approach virtually compared to when I come to the office"</i>	202-5-007
	<i>"He [the healthcare professional] asked me for my opinion, we decided to pursue this(in teleconsultation, regarding treatment choice)"</i>	301-5-006
The positive attitudes expressed by healthcare professionals in a face-to-face setting must be maintained and perceived by patients in a teleconsultation setting	<i>"I had the impression that there was more time to listen to me. The first question was, «How are you»? It was in a calm way. On the phone, it's even more important, I find, because you don't see the person "</i>	202-5-005
	<i>"Five to ten minutes late is acceptable to me. If it's longer than that, I would like to be notified. My doctor was about 30, 40 minutes late. I was at my office, doing paperwork while waiting for my teleconsultation, so it wasn't a problem, but for people who do not have a desk job it can be a problem"</i>	201-5-001

situations, individual characteristics such as deafness make it impossible to offer teleconsultation services. Similarly, there are environmental characteristics that hinder patients' teleconsultation experience. Some patients have limited access to communication services such as the Internet and telephone. This is the case for the following participant: 'My mother lives in a seniors' residence. The phones are connected to the Internet, if the power is down, the phone is not available' (Pt # 102-5-004).

Involve the patient in choosing the consultation mode for each encounter

The patient expresses personal preferences regarding the choice of teleconsultation or face-to-face mode depending on the type of professional services needed, and their preferences change over time. For example,

one patient expressed her needs as follows: 'My needs have changed since the beginning of the pandemic last year. Before, I would have preferred to have a video-conference meeting, now the telephone meets my needs ... we just got used to the telephone and it's okay' (Pt # 302-5-003).

Explain to the patient how the interprofessional dimension will be addressed

Communication between professionals is associated with a positive care experience for patients: 'I feel that there is a whole multidisciplinary team, and that they don't hesitate to talk to each other, that they know each other's strengths' (Pt # 201-5-005). Patients appreciate when the collaboration between professionals is carried out in the same way as during a face-to-face meeting: 'I had the

impression that they were more available [with the use of technology]. When my doctor isn't available, the super nurse meets with me. That works for me' (Pt # 202-5-005).

Intervene according to the care approach in partnership with the patient in teleconsultation

In the patient centred approach to care, the patient is an active participant in the meetings and must feel being listened by the healthcare professional to express their needs.⁴² However, some patients felt that the teleconsultation did not allow them to express all their needs: 'It's hard to talk on the phone, I have less chit-chat than face to face' (Pt # 302-5-005). Yet participants emphasised the value of their experiential knowledge, which they have acquired over time. This specific knowledge must be considered by the professional, including in the context of teleconsultation. The following example about the pain felt by a patient is telling: 'If I have problems because of chemotherapy, I am the one who has the pain, I am the pain specialist. If it's not strong enough, I'll tell my doctor, but they know how far I can go, I don't know that...' (Pt # 301-5-003).

The positive attitudes expressed by healthcare professionals in a face-to-face setting must be maintained and perceived by patients in a teleconsultation setting

Despite the distance, the patient feels an eventual lack of professionalism in teleconsultation. Patients interviewed found important to feel the availability and attentiveness of the professional in teleconsultation. Similarly, punctuality is a professional attitude that is important to the care experience: 'I find it important that the professional is on time for the teleconsultation meeting' (Pt # 201-5-001).

Patients named other important professional attitudes to be maintained by professionals during teleconsultation, namely: empathy, trust, consideration, the feeling that the professional has knowledge related to his or her field of practice, communication (especially for follow-up information) and the preparation of the professional before an encounter. This verbatim excerpt supports the importance of professional attitudes: 'I find it important to know that the professional knows my case. There are doctors who ask why did you come?... Look in my medical record' (Pt # 102-5-006).

Patients underlined the risk that technological mediation may be the gateway to fewer professional attitudes: 'Sometimes, I would hear him cleaning his house at the same time as his consultation, doing his dishes and, then going to make himself a little supper... I even heard a toilet flush during my appointment [...]' (Pt # 101-5-003).

DISCUSSION

The data collected at two points in time during phases 1 (February to July 2020) and 3 (March to July 2021)⁴³ of the pandemic allowed us to identify the expectations of patients with chronic diseases regarding the teleconsultation services offered in primary care clinics. First, patients

mentioned several advantages related to teleconsultation. They state the relevance of maintaining teleconsultation after the health crisis caused by COVID-19. However, patients' characteristics must be known and considered to decide on the best meeting mode for them. Despite the distance imposed by the change in service provision related to COVID-19, patients must be able to express their preferences, and maintain their ability to participate in healthcare decisions that affect them. Inter-professional collaboration and a partnership approach to care with the patient must remain at the heart of professional teleconsultation practices. Moreover, they must be explicit despite the teleconsultation. Finally, certain attitudes expressed by healthcare professionals must be felt and perceived by the patient during the consultation. These results have allowed us to identify general recommendations from the patients' perspective, which are explained below.

We found patients' overall positive assessment of teleconsultation. This observation is consistent with the literature.⁴⁴ Our results corroborate what Ramaswamy *et al*⁴⁵ reported from a cohort study of 40 000 patients that teleconsultation is associated with higher patient satisfaction compared with face-to-face visits. Our study adds to these data and demonstrates that this principled adherence is conditional on meeting key conditions recognised by patients. Patient satisfaction is partly explained by the pragmatic efficiency of teleconsultation, such as time saving, money saving and the impact on daily life of a short consultation for the professional. In addition, the perception of faster access to healthcare professionals is highly valued. These efficiency indicators from the users' point of view are often cited by patients and associated with a positive experience of care for them.⁴⁰ Similarly, as mentioned by Schaller *et al*,⁴⁶ the digitisation of practices, as accelerated by the pandemic, is a modality that will endure in the postpandemic period. We believe, however, that this potential for sustainability has conditions for improvement and success, and that the patient's perspective in identifying these is very useful.

From the patient's perspective, teleconsultation should not be used systematically, despite its great potential. Certain reasons of consultation and individual and environmental characteristics make teleconsultation inappropriate and must, therefore, be considered when choosing the best consultation mode. The patient must be considered as a key partner in the analysis of these reasons for each situation where teleconsultation is potentially useful,⁴⁷ as corroborated by the data in this study.

According to an evaluation report of an healthcare organisation¹⁷ and in accordance with the recommendations of a medical association,⁴⁷ the need to perform a physical or psychological examination is a reason for consultation that is not compatible with teleconsultation, due to the possible risks for patients. Some health conditions, comorbidities or multiple chronic diseases may also affect the patient's ability to benefit from teleconsultation services.²¹ This is the case for patients with advanced age,

cognitive impairments, and severe mental health problems.^{6 17 47} Issues related to mental health and teleconsultation have been raised by primary care nurses who have expressed unease in using technology with clients with mental or psychosocial problems.⁷

Teleconsultation can also be a source of health inequity. A study by Khoong *et al*⁴⁸ found that the most significant barrier to teleconsultation is limited access to the internet and mobile data. Internet costs and digital literacy are therefore factors that may be limiting for some patients and hinder the provision of teleconsultation services. In order to determine the best consultation mode, the French Haute Autorité de la santé⁴⁹ mentions that the professionals must ensure the patient's eligibility for such a teleconsultation mode by considering several factors, such as the clinical situation, the ability to communicate at a distance, individual factors (physical, psychological, socioprofessional, family), confidentiality at a distance, and the nature of the care (eg, physical contact necessary). However, we believe that this analysis must be done in partnership with the patient. The latter has a unique experiential knowledge acquired over time through daily experience with the health condition. The benefits and limitations of teleconsultation should be known to the patient. This is part of a collaborative care approach with the patient which is designed to ensure that decisions are made with the patient's needs and preferences in mind.

Some patients reported a lack of communication between healthcare professionals during teleconsultation. Patients had to repeat their needs and health history to each healthcare professional involved so that everyone was aware of their situation. This negatively impacts the patient's experience of care.⁴⁰ According to the literature review by Graves and Doucet,⁵⁰ there are several barriers to interprofessional collaboration to consider in teleconsultation. These include technical issues caused by technology, as well as coordination and organisational challenges, such as ambiguous responsibilities or increased workload caused by teleconsultation. Similarly, difficult relationships between professionals, marked by a lack of trust and tension, have a negative impact on teleconsultation collaboration within the team.⁵¹ In addition, the technology used can have a monodisciplinary silo effect if it promotes solo (clinician-patient) meetings that replace formal and informal consultation between clinicians.^{13 52} If teleconsultation meetings are to be maintained over time, it seems appropriate to equip professionals with the skills needed for interprofessional collaboration at a distance.⁵³

Some patients reported feeling less comfortable expressing their needs in teleconsultation. As a result, encounters are quicker, colder, more informal or even incomplete. The partnership approach to care with the patient must remain central even in the teleconsultation context. In this regard, the family member can also be consulted for decision-making purposes, if the patient so wishes.³ One study has shown that teleconsultation encounters are more likely to reproduce a paternalistic

approach to care, where the professional speaks more and controls the dialogue, while the patient has a more passive role.⁵⁴ Schaller *et al*⁴⁶ mentioned that the patient must be the conductor of his or her care pathway, even in teleconsultation. This implies access to quality, useful and understandable information from healthcare professionals.

Based on data collected in this study, we believe that the rapid adoption of teleconsultation in response to the healthcare measures imposed by pandemic crisis may have hindered the implementation of the patient centred approach. Indeed, professionals had to adapt quickly, adding the additional burden of the health crisis, which may have had an impact on their well-being and mental health.^{7 55} In addition, technologies used were not always mature enough to support intelligent teleconsultation, such as appointment scheduling, clinical record information and teleconsultation itself. The telephone often served as the teleconsultation technology, which fell far short of the capabilities of the best available technology devices.⁵⁶ A postpandemic routinisation will therefore need to go beyond the telephone mode and rely on technological development commensurate with scientific and patient recommendations. We assume that the technological delay has had an impact on the adoption of good practices. It is therefore recommended to ensure that the patient has full access to information as well as the required technology supplies.

Patients named several professional qualities and attitudes associated with a positive teleconsultation care experience. Many patients reported that a first encounter with a professional remotely makes them more uncomfortable. To this end, according to the literature review by Graves and Doucet,⁵⁰ the importance of creating a relationship of trust between the professional and the patient is emphasised. This is created through quality communication and the experience of mutual understanding. The first visit with the patient should be face to face, to help build trust.

This study has some limitations that need to be discussed. The patients' satisfaction high rate of with the teleconsultation could have been influenced by acquiescence and desirability emotional bias. Although questions were non-directional and neutrally framed, measuring patient satisfaction can be challenging^{57 58} and some patient may have reported being more satisfaction than they actually got. Patients' recommendations for continuing teleconsultation services perennity after COVID-19 were not differentiated by health condition, which should be taken into consideration when interpreting the results. These must also be adapted and tailored to other contexts or patients with other health condition. The results obtained are related to the Quebec teleconsultation reality, so projection to other contexts may be limited. Several factors such as teleconsulting tools, the type of technologies⁵⁹ and their integration to electronic medical records, as well as their shared costs, may influence the patients' satisfaction.^{60 61} Given the patients were already part of a research study,

they were not recruited based on their teleconsultation experiences. Therefore, although they may have had teleconsultation experiences during the study period, that could have been melted other healthcare experiences leading to a lower robustness of our data.

CONCLUSION

The strict resumption of face-to-face clinical activities in primary care services, including the primary care clinics, would contribute to slowing down the modernisation of services while risking a negative impact on the patient's experience of care. Indeed, patients perceive several benefits associated with teleconsultation and believe that it should be maintained in the postpandemic period. However, teleconsultation should always be a win-win situation for both the patient and the clinician, ensuring that the patient is comfortable with it, and for each consultation. It is essential to take the time needed to effectively implement teleconsultation in primary care, particularly by highlighting the good practices of professionals to keep this encounter mode in line with patients' needs. We must emphasise the importance of documenting the adverse effects of imperfect teleconsultation to correct them quickly before it becomes routinised and bad behaviours crystallise. Finally, healthcare systems have gone through a technological advancement precipitated by the pandemic crisis and the integration of the patient experience has often been sidelined. The experiential knowledge of patients makes them credible and indispensable actors in the improvement of healthcare and services. The patient perspective must therefore be part of the balanced implementation of optimal teleconsultation that is currently taking place.

Author affiliations

¹Department of Family Medicine and Emergency Medicine, Faculty of Medicine and Health Sciences, Université de Sherbrooke, Sherbrooke, Quebec, Canada

²Centre intégré universitaire de santé et de services sociaux du Saguenay-Lac-Saint-Jean du Québec, Chicoutimi, Québec, Canada

³School of social work, Université de Sherbrooke, Sherbrooke, Québec, Canada

⁴Department of Health Sciences, Université du Québec en Abitibi-Témiscamingue, Rouyn-Noranda, Québec, Canada

Acknowledgements The authors would like to thank all the participants for their valuable contribution to this research, Daniel-Constantin Manolescu for reviewing part of the manuscript, and Priscilla Beaupré and Amélie Boudreault for their help in collecting the data. Marie-Eve Poitras (junior) received a Research Career Scholar from the Fond de la recherche du Québec en santé (FRQS) and holds an academic chair of the Université de Sherbrooke on Optimal Professional Practices in Primary Care. This study was financially supported by the Fonds de recherche en Santé du Québec (FRQS), grant number PCIBL-2.

Contributors M-EP, YC, M-DP, GG and SM contributed to the conception and design of the study. CC, GG, M-DP, AG, MLO, AM, PB and AB collected the data and conducted interviews. CC, M-DP, M-EP, YC and VTV performed the coding and thematic analysis and interpretation of the results. VTV and CC wrote the draft of the manuscript and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript. M-EP, the guarantor, accepts full responsibility for the finished work and/or the conduct of the study, had access to the data, and controlled the decision to publish.

Funding This work was supported by the Fonds de Recherche du Québec en Santé under Grant number PCIBL-2.

Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval The project #2019-037 obtained ethical approval from the Centre intégré universitaire de santé et de services sociaux du Saguenay Lac-St-Jean and all participants provided consent to participate in the interview.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request. Unpublished data can be accessed by contacting the corresponding author.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Marie-Eve Poitras <http://orcid.org/0000-0002-3315-0190>

Yves Couturier <http://orcid.org/0000-0001-6848-8354>

Vanessa T Vaillancourt <http://orcid.org/0000-0002-9187-2300>

REFERENCES

- Lemire F, Sisler J. L'intégration des soins virtuels en médecine de famille. *Can Fam Physician* 2020;66:151.
- Centre intégré de santé et de services sociaux de la Gaspésie. Guide de soutien en télésanté, lignes directrices et bonnes pratiques, 2020. Available: <https://www.ciass-gaspesie.gouv.qc.ca/wp-content/uploads/2020/11/Guide-bonnes-pratiques-telesante-CIASS-Gaspesie-Novembre-2020.pdf>
- Ministère de la Santé et des Services Sociaux. Utilisation de la télésanté en vertu Du décret d'urgence sanitaire, 2021. Available: <https://publications.msss.gouv.qc.ca/msss/fichiers/2021/21-915-01W.pdf>
- Gouvernement du Québec. *Groupe de médecine de famille (GMF), Groupe de médecine de famille Universitaire (GMF-U) et super-clinique*, 2021.
- Rogers EM. *Diffusion of innovations*. 5th ed. New York: Free Press of Glencoe, 2003: 576.
- Breton M, Hudon C. *La première vague de Covid-19 Au Québec et les soins primaires*. *Rev Med Suisse*, 2020.
- Carrier J, Poitras ME, Girard A. Outpatient follow-up practices and the well-being of primary care and mental health nurses during the first wave of the COVID-19 pandemic: a cross-sectional survey. *International Journal of Nursing Studies* 2021.
- Unité d'évaluation médicale du CHRU de Nancy. Partenariat de soins. L'accès aux soins distance & COVID 19 | Retours d'expériences des patients et professionnels de santé. Newsletter des patients partenaires du CHRU de Nancy/septembre, 2020. Available: www.chu-nancy.fr/images/patients_partenaires_newsletter_02.pdf
- Isautier JM, Copp T, Ayre J, et al. People's experiences and satisfaction with telehealth during the COVID-19 pandemic in Australia: cross-sectional survey study. *J Med Internet Res* 2020;22:e24531.
- Breton M, Sullivan EE, Deville-Stoetzel N, et al. Telehealth challenges during COVID-19 as reported by primary healthcare physicians in Quebec and Massachusetts. *BMC Fam Pract* 2021;22:192.
- Foster MV, Sethares KA. Facilitators and barriers to the adoption of telehealth in older adults: an integrative review. *Comput Inform Nurs* 2014;32:523-33.

- 12 Lopez AM, Lam K, Thota R. Barriers and facilitators to telemedicine: can you hear me now? *Am Soc Clin Oncol Educ Book* 2021;41:25–36.
- 13 Hardcastle L, Ogbogu U. Virtual care: enhancing access or harming care? *Healthc Manage Forum* 2020;33:288–92.
- 14 Waseem N, Boulanger M, Yanek LR, et al. Disparities in telemedicine success and their association with adverse outcomes in patients with thoracic cancer during the COVID-19 pandemic. *JAMA Netw Open* 2022;5:e2220543–e43.
- 15 Le Journal de Montréal. La télémédecine augmente les consultations aux urgences, 2021. Available: <https://www.journaldemontreal.com/2021/04/25/la-telemedecine-augmente-les-consultations-aux-urgences-1>
- 16 Indexsanté. Télémédecine : avantages et inconvénients, 2020. Available: <https://www.indexsante.ca/chroniques/634/telemedecine-avantages-et-inconvenients.php>
- 17 Unité d'évaluation des technologies et des modes d'intervention en santé et en services sociaux. Évaluation exploratoire de la pertinence, de l'utilité et des impacts des téléconsultations, 2020. Available: https://iucpq.qc.ca/sites/default/files/rapport_etmis_teleante_iucpq-ciusss_estrie_chus_09-2020.pdf
- 18 Association médicale canadienne. *Virtual care in Canada : Discussion paper*. *CMA health summit*, 2019: 24.
- 19 Telehealth is here to stay. *Nat Med* 2021;27:1121–21.
- 20 Mason R FTC. Telehealth is here to stay - Long after the pandemic. *Forbes* 2021.
- 21 Collège des médecins du Québec. Les téléconsultations réalisées PAR les Médecins durant La pandémie de COVID-19, 2020. Available: <http://www.cmq.org/publications-pdf/p-1-2020-03-31-fr-les-teleconsultations-realisees-par-les-medecins-durant-la-pandemie-de-covid-19.pdf>
- 22 Gouvernement du Québec. Coffre outils pour Le professionnel de la santé, 2020. Available: <https://telesantequebec.ca/aide-et-soutien/coffre-a-outils-pour-le-professionnel-en-teleante/>
- 23 Ahmad F, Wysocki RW, Fernandez JJ, et al. Patient perspectives on telemedicine during the COVID-19 pandemic. *HAND* 2021;155894472110306.
- 24 Bodine CD, Das DG, Haywood K, et al. Barriers to telehealth: the patient perspective. *Journal of Clinical Oncology* 2020;38:266–66.
- 25 Ramaswamy A, Yu M, Drangsholt S, et al. Patient satisfaction with telemedicine during the COVID-19 pandemic: retrospective cohort study. *J Med Internet Res* 2020;22:e20786.
- 26 Kirby DJ, Fried JW, Buchalter DB, et al. Patient and physician satisfaction with telehealth during the COVID-19 pandemic: sports medicine perspective. *Telemed J E Health* 2021;27:1151–9.
- 27 Hoyt K, Reynolds A. The patient perspective on telemedicine. *Clin Liver Dis* 2022;19:167–70.
- 28 Ladin K, Porteny T, Perugini JM, et al. Perceptions of telehealth vs In-Person visits among older adults with advanced kidney disease, care partners, and clinicians. *JAMA Netw Open* 2021;4:e2137193–e93.
- 29 Hiratsuka V, Delafield R, Starks H, et al. Patient and provider perspectives on using telemedicine for chronic disease management among native Hawaiian and Alaska native people. *Int J Circumpolar Health* 2013;72:72.
- 30 Omboni S, Ballatore T, Rizzi F, et al. Telehealth at scale can improve chronic disease management in the community during a pandemic: an experience at the time of COVID-19. *PLoS One* 2021;16:e0258015.
- 31 Fortin M, Bravo G, Hudon C, et al. Prevalence of multimorbidity among adults seen in family practice. *Ann Fam Med* 2005;3:223–8.
- 32 Parry David SJ, Ann MC. Guide sur La collaboration entre les chercheurs et les utilisateurs des connaissances dans La Recherche en santé, 2015. Available: <https://cihr-irsc.gc.ca/f/44954.html>
- 33 Miles MB, Huberman AM, Saldana J. *Qualitative data analysis: a methods sourcebook*, 2014.
- 34 Poitras M-E. *Chronic disease patients' experience with telehealth interventions and self-care strategies during the first wave of the COVID-19 pandemic*, 2021.
- 35 Breton M, Lévesque J-F, Pineault R, et al. Primary care reform: can Quebec's family medicine group model benefit from the experience of Ontario's family health teams? *Health Policy* 2011;7:e122–35.
- 36 Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;19:349–57.
- 37 Canada Idresd. *Stratégie de recherche axée sur le patient - Cadre d'engagement des patients*. Ottawa: Gouvernement du Canada, 2020. <https://cihr-irsc.gc.ca/f/48413.html>
- 38 Poitras M-E, Godbout I, T Vaillancourt V, et al. Step-By-Step strategies for an integrated patient-oriented research: lessons learned from a multicentered study. *Science of Nursing and Health Practices - Science infirmière et pratiques en santé* 2020;3:1–9.
- 39 Poitras M-E, Couturier Y, Doucet E, et al. Co-design, implementation, and evaluation of an expanded train-the-trainer strategy to support the sustainability of evidence-based practice guides for registered nurses and social workers in primary care clinics: a developmental evaluation protocol. *BMC Prim Care* 2022;23:84.
- 40 Organisation for Economic Co-operation and Development. Paris survey of patients with chronic conditions, 2019. Available: <https://www.oecd.org/health/health-systems/PaRIS-survey-Patients-with-Chronic-Conditions-June-2019.pdf>
- 41 Parameswaran UD, Ozawa-Kirk JL, Latendresse G. To live (code) or to not: a new method for coding in qualitative research. *Qualitative Social Work* 2020;19:630–44.
- 42 Le collège des médecins de famille du Canada. Soins centrés sur Le patient dans les centres de médecine de famille, 2014. Available: https://patientsmedicalhome.ca/files/uploads/BA_PatCentre_FRE_Oct.10.2014_FINAL.pdf
- 43 Institut national de santé publique du Québec. Ligne Du temps COVID-19 Au Québec, 2022. Available: <https://www.inspq.qc.ca/covid-19/donnees/ligne-du-temps>
- 44 Flodgren G, Rachas A, Farmer AJ, et al. Interactive telemedicine: effects on professional practice and health care outcomes. *Cochrane Database Syst Rev* 2015;2015:CD002098.
- 45 Ramaswamy A, Yu M, Drangsholt S, et al. Patient satisfaction with telemedicine during the COVID-19 pandemic: retrospective cohort study. *J Med Internet Res* 2020;22:e20786–e86.
- 46 Schaller P, Kherad O, Jaunin-Stalder N, et al. Centre de santé de soins primaires : à quoi ressemblera-t-il dans le futur ? *Revue Médicale Suisse* 2021;17:934–8.
- 47 Collège des médecins du Québec. Rencontre en personne ou téléconsultation : comment trancher? 2021. Available: <http://www.cmq.org/publications-pdf/p-1-2021-02-18-fr-rencontre-en-personne-teleconsultation-comment-trancher.pdf?t=1639497647477>
- 48 Khoong EC, Butler BA, Mesina O, et al. Patient interest in and barriers to telemedicine video visits in a multilingual urban safety-net system. *J Am Med Inform Assoc* 2021;28:349–53.
- 49 Haute Autorité de Santé. Réponses rapides dans Le cadre Du COVID-19 -Téléconsultation et télésoin, 2020. Available: https://www.has-sante.fr/jcms/p_3168867/fr/reponses-rapides-dans-le-cadre-du-covid-19-teleconsultation-et-tesoin
- 50 Graves M, Doucet DS. Factors affecting interprofessional collaboration when communicating through the use of information and communication technologies: a literature review. *J Res Interprof Pract Educ* 2016;6.
- 51 Donnelly C, Ashcroft R, Bobbette N, et al. Interprofessional primary care during COVID-19: a survey of the provider perspective. *BMC Fam Pract* 2021;22:31.
- 52 Wharton GA, Sood HS, Sissons A, et al. Virtual primary care: fragmentation or integration? *Lancet Digit Health* 2019;1:e330–1.
- 53 Poitras M-E, Beaupré P, Girard A, et al. Les compétences en pratiques collaboratives interprofessionnelles des professionnels de la santé et des services sociaux en contexte virtuel : une étude de portée. *Conseil de recherches en sciences humaines du Canada* 2021.
- 54 Agha Z, Roter DL, Schapira RM. An evaluation of patient-physician communication style during telemedicine consultations. *J Med Internet Res* 2009;11:e36.
- 55 Collège des Médecins de famille Du Canada. *Soins virtuels dans Le centre de médecine de famille*. Mississauga, ON, 2021: 12.
- 56 Marshall EG, Breton M, Cossette B, et al. The puppy Study—Protocol for a longitudinal mixed methods study exploring problems coordinating and accessing primary care for attached and Unattached patients exacerbated during the COVID-19 pandemic year. *medRxiv* 2021.
- 57 Dunsch F, Evans DK, Macis M, et al. Bias in patient satisfaction surveys: a threat to measuring healthcare quality. *BMJ Glob Health* 2018;3:e000694.
- 58 Hays RD, Ware JE. My medical care is better than yours. social desirability and patient satisfaction ratings. *Med Care* 1986;24:519–25.
- 59 Fang J, Liu L, Fang P. What is the most important factor affecting patient satisfaction - a study based on gamma coefficient. *Patient Prefer Adherence* 2019;13:515–25.
- 60 Naidu A. Factors affecting patient satisfaction and healthcare quality. *Int J Health Care Qual Assur* 2009;22:366–81.
- 61 Batbaatar E, Dorjdagva J, Luvsannyam A, et al. Determinants of patient satisfaction: a systematic review. *Perspect Public Health* 2017;137:89–101.