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# Telehealth experiences in Canadian veterans: associations, strengths and barriers to care during the COVID-19 pandemic

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Received 2 November 2022  
Accepted 2 May 2023



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**To cite:** Walker DL, Nouri MS, Plouffe RA, et al. *BMJ Mil Health* Epub ahead of print: [please include Day Month Year]. doi:10.1136/military-2022-002249

## ABSTRACT

**Introduction** Identifying barriers to care in veteran populations is critical, as veterans face increased social isolation, relationship strains and financial insecurities. For Canadian veterans experiencing barriers to accessing healthcare, telehealth may be a promising alternative with comparable effectiveness to in-person services; however, the potential benefits and limitations of telehealth require further examination to determine its long-term utility, and to inform health policy and planning. The goal of the present research was to identify predictors and barriers to telehealth usage in Canadian veterans in the context of the COVID-19 pandemic.

**Methods** Data were drawn from baseline data of a longitudinal survey examining the psychological functioning of Canadian veterans during the COVID-19 pandemic. Participants were 1144 Canadian veterans aged 18–93 years ( $M_{age} = 56.24$ ,  $SD = 12.92$ ; 77.4% men). We assessed reported telehealth use (ie, for mental healthcare, physical healthcare), healthcare access (ie, difficulty accessing care, avoidance of care) and mental health and stress since the beginning of the COVID-19 pandemic, sociodemographic variables and open-ended responses about telehealth experiences.

**Results** Findings suggest that sociodemographic factors and previous telehealth use were significantly associated with telehealth use during the COVID-19 pandemic. Qualitative evidence highlighted both the benefits (eg, reducing barriers of access) and drawbacks (eg, not all services can be delivered) of telehealth services.

**Conclusions** This paper provided a deeper understanding of Canadian veterans' experiences with accessing telehealth care during the COVID-19 pandemic. While for some, the use of telehealth mitigated perceived barriers (eg, safety concerns of leaving home), others felt that not all health services could be appropriately carried out through telehealth. Altogether, findings support the use of telehealth services in increasing care accessibility for Canadian veterans. Continued use of quality telehealth services may be a valuable form of care that extends the reach of healthcare professionals.

## INTRODUCTION

Veterans are a particularly vulnerable population, with North American veterans reporting significantly higher rates of post-traumatic stress disorder (PTSD), depression and anxiety compared with the general population.<sup>1</sup> Veterans are also more likely to experience physical health disabilities compared with the general population, including

## WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ For Canadian veterans experiencing barriers to access, telehealth may be a promising alternative with comparable effectiveness to in-person services; however, some veterans have reported difficulties in transitioning services to telehealth.
- ⇒ The potential benefits and limitations of increased telehealth reliance for Canadian veterans in the context of the COVID-19 pandemic require further examination to determine the long-term utility of telehealth care, and to inform health policy and planning.

## WHAT THIS STUDY ADDS

- ⇒ Our study presents a deeper understanding of Canadian veterans experiences with accessing telehealth care, including where telehealth was perceived as effective (ie, increased accessibility, medication refill) versus ineffective (ie, physical examination), and reveals associations between telehealth use in veterans with sociodemographic factors (ie, age, education, income, area and region) and previous telehealth use.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ Despite telehealth presenting as a somewhat novel form of healthcare for many Canadian veterans, our findings suggest that telehealth improves the accessibility of care, providing support for telehealth use in the future.

chronic pain, cardiovascular disease, hearing loss, cancer and arthritis.<sup>1,2</sup> Despite the unique healthcare needs of veterans in North America, previous research has demonstrated that a large proportion of those who meet criteria for one or more mental and/or physical health conditions did not seek out formal healthcare.<sup>3</sup> There are several significant barriers to seeking out healthcare, both on an individual and organisational level.<sup>4</sup> Commonly cited barriers to accessing care include perceived stigma, logistical concerns associated with travelling and/or accessing care, preference for self-management, lack of perceived need and PTSD-related avoidance.<sup>3,5,6</sup> These barriers pose significant concerns in the context of the COVID-19 pandemic, as North American veterans now face self-reported worsening mental health, increased social isolation,

relationship strains and financial insecurities.<sup>7-9</sup> For North American veterans experiencing barriers to access, telehealth may be a promising alternative to face-to-face healthcare.<sup>10 11</sup> As such, developing an understanding of the predictors of telehealth use (for both physical and mental healthcare) during the COVID-19 pandemic would aid in increasing healthcare access for North American veterans seeking out healthcare.

Telehealth (also referred to as digital health or mobile health) is a term encompassing the facilitation of services via technology such as telephone or video communication to conduct health assessments and treatments,<sup>12</sup> and became a necessity during the COVID-19 pandemic. Examples of telehealth could include video, telephone and messaging communication with providers, web-based interventions or the use of mobile phone technology (ie, applications).<sup>12</sup> With lockdown measures and service closures, telehealth services rapidly expanded, which increased access to healthcare, particularly for those in remote areas.<sup>13</sup> Research has established the comparable effectiveness of telehealth-delivered psychotherapeutic interventions compared with in-person interventions in veterans with a wide range of mental health conditions,<sup>14</sup> including PTSD, anxiety and depression.<sup>15</sup> The use of telehealth for medication management has also been growing steadily, even prior to the onset of the COVID-19 pandemic.<sup>16</sup> Such services can enhance the timeliness of care access, reduce logistical concerns (including cost) and allow increased access to specialty services.<sup>17</sup>

Despite evidence of effectiveness for mental healthcare and medication management, as well as the increased offering by healthcare providers during the pandemic, the uptake of telehealth services may differ based on the unique needs of various individuals. For example, some North American veterans have reported difficulties in transitioning physical health services to telehealth (eg, physical therapy, dental care, hearing care),<sup>10</sup> and others have reported that telehealth may create barriers to establishing a relationship with their provider and to freely voicing their health concerns.<sup>18</sup> The modality of telehealth may contribute to additional healthcare access barriers. These barriers may be related to age and technological ability (eg, older veterans are less likely to use telehealth),<sup>19</sup> sociodemographic factors (eg, rural, low-income and homeless veterans are less likely to use telehealth)<sup>13 20 21</sup> and levels of resource access (eg, insurance, internet).<sup>22</sup> Healthcare providers and veterans may also feel more comfortable with telehealth treatment for some mental health diagnoses (eg, PTSD, depression, anxiety) compared with others (eg, substance use, psychosis).<sup>23</sup> However, there is evidence to suggest that veterans find telehealth treatment for wide-ranging mental health concerns, including substance use, to be effective and easy to use.<sup>24</sup> Thus, understanding individuals' presenting concerns and contextual variables is critical for determining the best modality for treatment and encouraging treatment adherence.

Taken together, the potential benefits and limitations of increased telehealth reliance among North American veterans require further examination. In particular, research documenting Canadian veterans' experiences with telehealth during the COVID-19 pandemic presents an opportunity to determine the long-term utility of telehealth and to inform health policy and planning.

## CURRENT STUDY

In the current study, we (1) examined Canadian veterans' experiences with accessing telehealth services in relation to demographic characteristics (eg, age, gender), mental well-being (eg,

mental health, stress), social determinants of health (eg, income, education), previous telehealth use and general healthcare access during the COVID-19 pandemic and (2) identified strengths and barriers to telehealth use based on Canadian veterans' lived experiences.

## METHODS

### Participants

Data were drawn from the primary baseline data of a longitudinal survey examining the psychological functioning of Canadian veterans during the COVID-19 pandemic.<sup>25</sup> For further details on methodology, please see Forchuk *et al.*<sup>25</sup> Data from those who identified as Canadian veterans (ie, had served in the Canadian Armed Forces and had released prior to survey completion) who completed the baseline survey (from July 2020 to February 2021) were included in the present study.

### Patient and public involvement

Patients and the public were not involved in this study.

## MEASURES

### Telehealth use and healthcare access

Participants were provided with the following definition of telehealth: "Telehealth is the use of digital information and communication technologies, such as computers and mobile devices, to access health care services remotely and manage your health care. Examples of telehealth may include virtual appointments, or the use of web-applications for assessments and treatments". We then assessed the frequency of telehealth use for both mental and physical healthcare prior to the COVID-19 pandemic using questions developed for the present study on a 4-point scale (*never, 1–2 times, 3–5 times, 5+ times*). Similarly, we quantified interest in using telehealth prior to COVID-19 for both mental and physical healthcare on a 3-point scale (*not interested, somewhat interested, very interested*). We dichotomised telehealth use since the beginning of the COVID-19 pandemic (*yes/no*). For those receiving telehealth care, we requested that participants identify the types of care received (*mental healthcare, physical healthcare, other*). Participants also reported whether they had experienced any difficulty in accessing healthcare (in general) since the beginning of the pandemic (*yes/no*), and whether they had avoided accessing healthcare that they would have otherwise obtained (*yes/no*). Participants who indicated that they had not yet accessed telehealth care were asked to indicate their level of interest in connecting virtually with a healthcare provider if needed in the future on a 5-point Likert scale (1=*strongly agree* to 5=*strongly disagree*).

### Mental health and stress

We assessed mental health and stress since the beginning of the COVID-19 pandemic by asking participants: "Since the start of the pandemic...your [mental health/stress level] is:". Participants responded to these two items on a 5-point Likert scale ranging from 1 (*significantly worse than before*) to 5 (*significantly better than before*).

### Open-ended responses

Participants had the option of providing open-ended responses regarding the context of care that they received through telehealth (eg, the purpose/issue, type of practitioners, method of connecting) for mental healthcare, physical healthcare and other healthcare. Finally, an open-ended text field asked participants

for any additional feedback regarding their experience(s) with telehealth.

### Data analytic strategy

Quantitative study data were analysed using SPSS V.26.0<sup>26</sup> and R V.4.1.3.<sup>27</sup> Independent samples t-tests were used to determine differences in mental health and stress between those who had accessed telehealth since the beginning of the pandemic and those who had not. Hierarchical multinomial logistic regression was used to examine associations between independent variables (ie, age, gender, education, income, area, region, previous telehealth use, care access) and reported use of telehealth during the COVID-19 pandemic (ie, no telehealth use, telehealth for mental healthcare, physical healthcare and both); variables were added sequentially across three models, and  $\chi^2$  tests were used to compare goodness-of-fit of nested models. 'No telehealth use' was used as the reference category.

Qualitative data on participants' experiences with telehealth were analysed using NVivo Software V.12.<sup>28</sup> Thematic analysis was used on veterans' open-ended responses. We identified initial items of interest emerging from participants' responses. Then, we generated codes to distinguish important features of the data and deduced key themes representing overarching patterns. Each response was coded by two independent coders. Conflicts in coding were resolved by discussion. Initial coder agreement between raters (ie, the percentage of content where the two raters agreed on whether the content was coded at the node)<sup>28</sup> was 97.57%.

### RESULTS

A sample of 1144 Canadian veterans between the ages of 18 and 93 years were included for analyses ( $M_{\text{age}}=56.24$ ,  $SD=12.92$ ; 77.4% men; see table 1).

#### Predictors of telehealth use

Overall telehealth use is reported in table 2. Eighty-eight per cent ( $n=877$ ) of Canadian veterans in the sample reported needing care since the beginning of the pandemic, 44% ( $n=433$ ) reported using telehealth services during the pandemic and 64% ( $n=82$ ) indicated having no prior experiences with telehealth indicated potential future interest in telehealth. We conducted three multinomial logistic regression models predicting telehealth use (ie, telehealth for mental healthcare, physical healthcare and both). We collapsed categories for age, education, income and area, and excluded the Northern Territories area due to small sample size (ie,  $n=5$ ). We used listwise deletion of incomplete cases to ensure consistent sample sizes when conducting likelihood ratio tests and analysis of variance to compare models. We removed participants who responded to questions relating to telehealth use and healthcare access with one of *prefer not to answer*, *not applicable* and *I did not need care* to ensure that the sample consisted of only those who reported needing care during the COVID-19 pandemic. Thus, our sample size for the multinomial logistic regression analysis consisted of 566 veterans. Multinomial logistic regression analyses indicated that a model with all predictors included (deviance=1176.73 and akaike information criterion=1284.73) explained between 24.9% (Cox and Snell  $R^2$ ) and 27.5% (Nagelkerke  $R^2$ ) of the variance in telehealth use. ORs for each variable of interest in model 3 are outlined in table 3. Relative to before the pandemic, 62% ( $n=649$ ) of Canadian veterans reported worsened mental health, and 71% ( $n=324$ ) reported worsened stress. Additionally, Canadian veterans who accessed telehealth since the beginning of the

**Table 1** Demographic data

Variable	Overall sample % (n)
Gender	
Male	77.8 (869)
Female	22.2 (248)
Age (years)	
≤44	21.0 (235)
>44–60	44.7 (500)
>60	34.3 (384)
Education	
High school or less	28.1 (317)
Some college/university	29.4 (332)
Completed college/university/graduate	42.5 (479)
Household income (\$C)	
<60 000	29.9 (295)
60 000–79 999	16.5 (163)
80 000–99 999	17.2 (169)
>100 000	36.3 (358)
Element	
Land	58.3 (664)
Air	23.9 (272)
Sea	16.0 (182)
Component	
Regular Force	81.3 (925)
Reserve Force	17.8 (202)
Rank	
Junior non-commissioned members	45.7 (519)
Senior non-commissioned members	35.0 (398)
Junior officer	9.6 (109)
Senior officer	9.7 (110)
Length of service (years)	
<10	22.8 (252)
10≤20	23.4 (259)
20≤30	32.2 (356)
30+	21.5 (238)
Province	
Atlantic Region	21.5 (220)
Central Canada	49.0 (502)
Prairie Provinces	16.2 (166)
West Coast	12.8 (131)
Northern Territories*	0.5 (5)
Area	
Small city	23.8 (267)
Large city/suburbs	35.6 (400)
Town/Village/Rural area	40.6 (456)
*Northern Territories were excluded from multinomial regression analysis due to small cell size.	

pandemic reported significantly increased stress and worsened mental health since the beginning of the pandemic versus those who did not access (table 4).

#### Positive experiences with telehealth

One hundred and ninety-four Canadian veterans provided qualitative responses for their general experiences with telehealth. The most common mode of accessing telehealth services was via telephone ( $n=133$ ), followed by videoconferencing ( $n=68$ ; table 5). Canadian veterans found telehealth experiences to be effective, with many ( $n=97$ ) reflecting that their needs were met.

**Table 2** Descriptive results of telehealth use in Canadian veterans

Variable	Mental healthcare % (n)	Physical healthcare % (n)
Telehealth use prior to pandemic	17 (166)	23 (224)
No interest in telehealth prior to pandemic	66 (647)	62 (607)
Telehealth use since pandemic	75 (324)	47 (204)

They also found that telehealth was convenient, with benefits including quicker access, saving time and additional resources. Specific examples of convenience included use of telehealth for prescription renewals and medication review (n=109), regular check-ups (n=88) and communicating results of tests (eg, bloodwork, CT scan; n=23). Canadian veterans described their telehealth experiences as being more accessible than in-person

**Table 4** Independent t-tests for mental health and stress and telehealth use

Variable	Telehealth M (SD)	No telehealth M (SD)	df	P value	t-test	d
Mental health	2.15 (0.85)	2.28 (0.85)	924	0.02	2.45	0.15
Stress	1.94 (0.85)	2.13 (0.91)	984	0.00	3.20	0.22

appointments (n=33), with some noting that they felt increased safety and comfort when attending appointments from their home environment (n=7). For example, one veteran shared that “it was nice being able to wait in the safety of my home and still talk to a professional who could perhaps put my mind at ease”, and another noted that “I tend to open up more as I’m relaxed in my own home”. Some reported that even though their healthcare provider had returned to in-person care, they chose to continue

**Table 3** Hierarchical multinomial regression model assessing telehealth care use among Canadian veterans during the COVID-19 pandemic

Factor	Telehealth for both mental and physical healthcare		Telehealth for only mental healthcare		Telehealth for only physical healthcare	
	OR	95% CI	OR	95% CI	OR	95% CI
Age (years)						
<44	1.67	0.72 to 3.84	2.32	0.77 to 6.97	0.42*	0.21 to 0.82
45–60	1.63	0.78 to 3.39	3.44*	1.30 to 9.08	0.54*	0.33 to 0.89
>60	Reference		Reference		Reference	
Gender						
Male	1.04	0.56 to 1.93	2.55*	1.10 to 5.88	1.00	0.59 to 1.71
Female	Reference		Reference		Reference	
Education						
High school diploma or less	0.30*	0.12 to 0.74	0.70	0.31 to 1.59	0.75	0.43 to 1.31
Some college/university	1.36	0.74 to 2.49	0.90	0.42 to 1.92	1.09	0.65 to 1.83
Completed college/university	Reference		Reference		Reference	
Household income (\$C)						
<60 000	Reference		Reference		Reference	
60 000–79 999	1.98	0.85 to 4.58	2.64	0.98 to 7.14	2.99**	1.49 to 5.99
80 000–99 999	0.66	0.27 to 1.60	0.97	0.34 to 2.75	1.71	0.86 to 3.40
>100 000	1.03	0.50 to 2.11	1.78	0.73 to 4.32	2.71**	1.47 to 5.00
Area						
Large city/suburbs	Reference		Reference		Reference	
Town/Village/Rural	0.55	0.30 to 1.02	0.70	0.32 to 1.49	0.80	0.48 to 1.33
Small city	0.42*	0.19 to 0.93	1.80	0.81 to 4.01	1.11	0.62 to 2.00
Region						
Atlantic Region	1.17	0.56 to 2.46	1.43	0.65 to 3.15	1.91*	1.09 to 3.34
Central Canada	Reference		Reference		Reference	
Prairie Provinces	0.96	0.43 to 2.17	1.23	0.52 to 2.97	1.24	0.66 to 2.34
West Coast	3.67**	1.74 to 7.73	0.86	0.26 to 2.85	1.95*	1.03 to 3.72
Previous telehealth use for mental healthcare						
Yes	4.63**	2.38 to 9.02	6.00**	2.88 to 12.49	0.81	0.39 to 1.66
No	Reference		Reference		Reference	
Previous telehealth use for physical healthcare						
Yes	1.12	0.58 to 2.17	0.89	0.41 to 1.94	2.00**	1.20 to 3.33
No	Reference		Reference		Reference	
Difficulty accessing care						
Yes	1.30	0.71 to 2.39	1.69	0.81 to 3.53	1.04	0.66 to 1.65
No	Reference		Reference		Reference	
Avoidance of care						
Yes	1.17	0.66 to 2.07	1.16	0.60 to 2.25	0.78	0.49 to 1.23
No	Reference		Reference		Reference	

\*P&lt;0.05, \*\*p&lt;0.01; n=566.

**Table 5** Summary of qualitative responses for mode, providers and primary complaints

Theme	Examples
Modes of accessing telehealth	Facetime, Skype, Zoom, Doxy.me, VSee, OWL, Medeo, email, text message, onling booking systems, onling testing software
Healthcare providers	Psychologists, counsellors, psychiatrists; doctors, general practitioners, specialists
Mental health symptoms/ conditions	PTSD, anxiety, depression, chronic pain, feelings of isolation and distance from others, stress management, crisis services, routine care, unspecified counselling
Physical health symptoms/ conditions	Chronic and long-term conditions, follow-up (eg, postsurgery, test results), emergency/acute health concerns, general assessments, consultations, referrals, prescription and medication renewal
PTSD, post-traumatic stress disorder.	

with telehealth for routine appointments, minor complaints and prescription-related inquiries. One veteran noted, “*It can actually make access to health care faster. It certainly is easier for us than the distance we have to drive to get in-person health care*”, and another noted “*[it] has simplified the system and saves time for minor check-ins*”.

Canadian veterans underscored the importance of established relationships with their care providers in facilitating the transition to telehealth. They noted that having a pre-existing relationship with their physician aided in the transition to telehealth. For example, one veteran expressed, “*My telehealth experiences probably wouldn't be as effective if I didn't already have a good relationship with my Dr. gained from months of in-office visits*”. Another veteran expressed similar sentiments, noting, “*I have concerns whether it would have been [effective] had my therapist and I not already developed a healthy and productive therapeutic alliance and trust*”.

### Negative experiences and barriers to telehealth

Fifty-six per cent of Canadian veterans reported having trouble accessing healthcare during the pandemic, while 47% reported avoiding healthcare that they may have otherwise received in person. Many reported a preference for in-person care (n=39; eg, “*It is fine for the time being, but in-person (face-to-face) meetings are much more productive*”). Canadian veterans reported that although at times telehealth can serve as a temporary replacement, it “*just does not feel the same*” as in-person. Several reported feeling that telehealth was ineffective for them (n=73), and that their needs were not met through telehealth services. For example, one veteran shared that “*only so much can be done remotely, so it's impractical in some settings to expect proper care done remotely*”. A theme among veterans was the impersonal nature of telehealth compared with in-person services (n=16), with one veteran noting that “*in-person is best especially for those of us vets who like to isolate*”.

Notably, many referenced the lack of resources available to meet their needs through telehealth (n=52). For example, when physical testing or examination was required (eg, X-rays, blood-work), clients were not able to access these services via telehealth (eg, “*difficulty with examination and testing/treatment without physical presence*”). Transitions from in-person care to telehealth reduced access to key services, including chiropractic and physiotherapy, where key components (eg, massage, physical examination) could not be effectively completed in a virtual setting. For example, one veteran shared “*...things like massage cannot be*

*done by phone. I suffered dearly and had many setbacks because of it. I have gone backwards about 5 [years] in physical progress*”. However, physiotherapy remained a commonly reported service accessed over video (n=16).

Additional issues relating to general accessibility included miscommunication with the healthcare provider resulting in errors, concerns about confidentiality and feeling ‘rushed’ through their appointment. For example, many expressed concern about their healthcare provider’s ability to diagnose physical concerns over telehealth (eg, “*No physical examination is [possible] by telehealth*”, “*Statistics such as weight [and] proper blood pressure were not taken, glucometer ratings were not checked or discussed*”). Some reported that their physicians were not willing/able to diagnose over the phone, and in cases where diagnoses were communicated via telehealth, Canadian veterans expressed concerns about their accuracy without physical examination. For example, one veteran shared “*[It's] hard for a doctor to discern the level of impairment of motor function from a back injury when he cannot see you, [nor] check range of motion*”. Some reported that virtual visits would often lead to in-person visits or referral to the emergency room, with one veteran indicating that they needed to attend the emergency room due an error in the medication prescribed via telehealth.

Similarly, many concerns related to accessibility seemed to suggest the use of telehealth amplified existing accessibility challenges. These included limited privacy in their own home, difficulty concentrating, long wait times and little availability for services and limited accommodations for accessibility needs (eg, accommodations on telehealth platform for hearing and visual impairment; n=27). For example, one veteran stated, “*It was basically useless: I am hearing impaired and cannot communicate by electronic means, and the [provider] was not able/willing to communicate by text*”. Veterans also reported experiencing issues related to technology (n=10), primarily relating to interruptions in connectivity, limited internet access and lack of familiarity with the technology.

### DISCUSSION

Through examining associations with telehealth access in Canadian veterans, we found that sociodemographic factors and previous telehealth use were significantly associated with telehealth use during the COVID-19 pandemic. Although previous research has linked increased telehealth use with younger ages in North American veterans,<sup>19</sup> our findings suggested that Canadian veterans between the ages of 45 years and 60 years were the most likely to seek out mental healthcare compared with those under 45 years and over 60 years. Contrasting previous research,<sup>19</sup> our findings suggested that older Canadian veterans are *more* likely to access telehealth for physical health concerns. However, Canadian veterans may otherwise perceive physical healthcare services as being less effective when offered virtually, particularly when there are issues of trust in the provider and concerns relating to the accuracy of diagnosis. It is notable that Canadian veterans who reported having previously sought out telehealth care for mental healthcare were nearly five times more likely to seek out telehealth for both physical and mental healthcare and six times more likely to seek out mental healthcare alone compared with those who had not used telehealth in the past. Additionally, Canadian veterans who had previously sought out telehealth for physical healthcare were also more likely to seek out telehealth for physical healthcare during the COVID-19

pandemic. Thus, our findings emphasise the importance of prior telehealth use for future use, particularly when in-person care is otherwise limited.

In line with previous research,<sup>21</sup> we found that Canadian veterans living in small cities and rural areas were less likely to access telehealth for both physical and mental healthcare. Despite technology reducing the need to travel into the city for appointments, Canadian veterans continued to report challenges associated with accessibility when concerning disability status (eg, hearing, visual demands) and technological difficulties (eg, internet access, connectivity, cell service). These findings highlight the need for improved access to services in rural areas, and for further attention to patient feedback and preferences in the future (eg, facilitating open discussions between providers and patients regarding modality of care).<sup>29</sup> However, Canadian veterans who reported difficulty with accessing care, and those who reported avoiding care, were not any less likely to access telehealth compared with those who did not report access difficulties or care avoidance. This suggests that telehealth is still an important resource for reaching Canadian veterans who may otherwise experience difficulty in accessing healthcare.

### LIMITATIONS AND FUTURE DIRECTIONS

Although the present research provided insight into the telehealth use and experiences of Canadian veterans, it is not without limitations. First, the current analyses focused on cross-sectional data. Future research is needed to examine the longitudinal trajectory of telehealth use to observe changes in use and experiences over time. Second, due to the self-selection nature of our survey, most respondents were older than 50 years of age, Caucasian and identified as men; as such, our sample may not be representative of Canada's veteran population. Third, engagement with the current study required an internet connection, access to recruitment materials and familiarity with the use of technology. Thus, those who did not have access to the internet, a computer or smartphone/devices may be under-represented in our sample.<sup>30</sup> Also, although some respondents indicated the modality of their care in their open-text responses, future surveys should seek to consistently specify between different forms of telehealth (ie, video, phone) to compare experiences based on modes of access. Identifying differences between in-person, phone and video services could aid in better contextualising telehealth access and barriers to care.<sup>12</sup> Future research may also seek to examine the perspectives of healthcare providers in the transition to providing telehealth services. This would allow for further investigation of gaps in services that are offered via telehealth from a provider standpoint, and provide insight into potential hesitations on the part of healthcare providers in offering telehealth services. Similarly, with evidence to suggest the benefits of telehealth within a civilian population,<sup>31</sup> it would be beneficial for future research to examine differences between veterans and a civilian population on the uptake of telehealth services since the COVID-19 pandemic. Finally, given that the current data were collected beginning in July 2020 (after the first wave of the pandemic), we cannot rule out response bias (ie, recollection errors) when asking about individuals' experiences 'since the start of the pandemic'; however, we acknowledge that this timeline of <1 year is within the range of common Statistics Canada population-wide surveys inquiring about past-year health service use (eg, the Canadian Community Health Survey 2002–2014 and the Canadian Forces Mental Health Survey 2013).

### CONCLUSION

The current findings provide a deeper understanding of Canadian veterans' experiences with accessing telehealth care, including areas where telehealth was perceived as effective compared with ineffective, as well as facilitators and barriers of telehealth use. For many veterans, the pandemic amplified their health needs and reliance on healthcare systems. Indeed, veterans who reported needing telehealth services at the beginning of the pandemic continued to need services due to worsening mental and physical health as the pandemic persisted. Qualitative findings indicated that telehealth itself can be both positively perceived and negatively perceived by veterans. While for some, the use of telehealth mitigated perceived barriers, such as safety concerns of leaving home, others felt that not all health services can be appropriately carried out through telehealth. Finally, an existing relationship with a care provider seemed to facilitate transition to telehealth for Canadian veterans. Altogether, quantitative and qualitative findings provided a deeper understanding of the contextual factors for which veterans were seeking and receiving care during the pandemic. Our findings lend support to the use of telehealth services in increasing care accessibility for Canadian veterans. Continued use of quality telehealth services may be a valuable form of care that extends the reach of healthcare professionals, particularly for mental healthcare services.

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**Contributors** DLW, MSN, RAP, JJWL, TL, DG and AN responsible for data extraction, analysis and interpretation. DLW, MSN, RAP, JJWL, TL, CAF, KStC, AN and JDR involved in manuscript development and revisions. JDR and AN responsible for overseeing project. JDR acts as guarantor.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

**Competing interests** None declared.

**Patient consent for publication** Not applicable.

**Ethics approval** This study was approved by Western University's Health Sciences Research Ethics Board and the Lawson Health Research Institute (REB approval # 115933). Participants gave informed consent to participate in the study before taking part.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data availability statement** Data are available on reasonable request. Data are available on request.

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