



# BMJ Open What are patients' first-time experiences with video consulting? A qualitative interview study in Danish general practice in times of COVID-19

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**To cite:** Assing Hvidt E, Christensen NP, Grønning A, *et al*. What are patients' first-time experiences with video consulting? A qualitative interview study in Danish general practice in times of COVID-19. *BMJ Open* 2022;**12**:e054415. doi:10.1136/bmjopen-2021-054415

► 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-2021-054415>).

Received 17 June 2021  
Accepted 28 March 2022



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## ABSTRACT

**Objective** To explore the experiences of Danish patients using video consultation (VC) to consult their general practitioner (GP) during COVID-19 lockdown and their attitudes towards continued use beyond COVID-19.

**Design** A qualitative design was employed, consisting of individual semi-structured interviews where participants were asked to retrospectively describe their experiences and reflections. Data were analysed using thematic analysis.

**Setting** Capital and Southern Regions of Denmark.

**Participants** 27 patients (17 women and 10 men) aged between 23 and 76 years who had used VC once or more during the COVID-19 pandemic participated. The data were collected from February to October 2020. We used a convenience sampling technique and sample size was based on the principle of information power.

**Results** Three overarching themes, each containing subthemes, were developed. Participants described pre-use reactions and concerns relating to VC as being 'better than nothing' given the COVID-19 circumstances, and preferred VC over a telephone consultation. Salient pre-use concerns related to whether the technology 'would work' and whether VC would influence consultation length and GP behaviour. Overall, participants reported positive experiences of VC use and communication attributing these mainly to 'knowing the GP' and 'feeling seen and heard'. Participants were interested in future VC use for many needs as a natural consequence of an increasingly digitalised society, not least due to COVID-19.

**Conclusions** Our findings contribute with knowledge about first-user experiences of VC against the background of COVID-19. Participants showed positive attitudes towards future use of VC as either a supplementary or alternative consultation form in general practice.

## INTRODUCTION

Video consultation (VC) is the newest consultation type in the context of general practice, intended to supplement physical consultations (in the clinic and in patients' homes), email consultations and telephone consultations.<sup>1</sup> VC is a remote, synchronous consultation type which facilitates audiovisual two-way

## Strengths and limitations of this study

- First study to explore Danish patients' experiences with consulting their general practitioner via video in the COVID-19 context.
- In-depth interviews provided valuable new insights into the factors that shape patients' positive attitudes towards future adoption of video consultation (VC).
- Results are transferrable to contexts similar to the Danish general practice setting.
- Patients' experiences with VC were influenced by the COVID-19 situation which might limit the transferability to periods beyond the pandemic.

communication between general practitioner (GP) and patient.<sup>2</sup> Compared with telephone consultations, the visual aspect in VC adds gestures and body language to the GP-patient interaction and enables the patient to offer their body for visual examination.<sup>3</sup>

Literature relating to VC user experiences in primary care both before and during the pandemic present mixed and highly context-dependent results.<sup>3-6</sup> Generally, quantitative and qualitative studies, reporting on patient satisfaction of VC in primary care, point towards high satisfaction (compared with physical or telephone consultations) and high interest in future use, especially among patients with non-critical conditions, mental illness and chronic conditions, who report increased convenience in terms of time saved (avoiding travel-time and waiting time) and of consulting with the practitioner from a place of one's own choosing (mostly the home).<sup>4 6-9</sup> While some patients have reported VC to be their preferred consultation type for selected health conditions, indicating that needs for patient-centred care and rapport-building have been satisfactorily met through a VC, others have reported to



prefer physical consultations due to technical challenges, privacy issues and loss of the ‘personal’ feel of a physical encounter.<sup>4 10</sup> Although many GPs find VCs to be appropriate for selected consultations, GP-experiences with VCs have given rise to concerns about quality and health outcomes: that VC will increase the risk of missing out on patients’ symptoms, weaken relational rapport-building due to a limited use of one’s senses and ‘gut feeling’ and widening health inequalities among groups of disadvantaged patients.<sup>3 11</sup> In a cross-sectional study among GPs in Norway, 51% of GPs evaluated VC to have similar or better suitability compared with physical consultations. However, the GPs perceived suitability to vary across health problems and reasons for consulting. VC was especially considered suitable for chronic pain, follow-up on established cancer treatment, sleeping problems and mental health problems.<sup>12</sup>

There remains a lack of evidence relating to patients’ experiences with VC within a primary care setting. The context of this study is general practice in Denmark during the lockdown period where most physical consultations were drastically converted to virtual consultations (email, telephone and video).

General practice in Denmark serves as a first-contact access point to the fully tax-financed Danish healthcare system that offers almost all services free of charge to citizens, including VC. The GPs may refer patients to another specialist treatment. About 98% of all Danish citizens are listed with a GP (in most cases of their own choosing), and a GP usually has a patient list of around 1600 patients.<sup>13</sup> This list system enables the GP to develop a better knowledge of the individual patient (continuity of care) and knowledge of the family.

Before the COVID-19 pandemic VC-uptake was low. A pilot trial implemented by MedCom reported only 503 VCs undertaken by 40 practices across Denmark in the period of June 2019–January 2020,<sup>14</sup> indicating a need for support in general practice to enable implementation and sustained use of VC in daily practice.

During the first lockdown period in Denmark, initiated on the 11 of March 2020,<sup>15</sup> the Danish Regions and the Danish Organization of General Practitioners (PLO) recommended that physical consultation in general practice would be substituted either by telephone consultation or VC to reduce the risk of COVID-19 transmission.<sup>16</sup> As part of this sudden development, PLO developed access to VC through a mobile application (the My Doctor application) with the result that VCs were made available to almost all citizens in Denmark as long as they were the owner of a mobile device and sufficient internet connection could be secured.<sup>17 18</sup> In the period following this crisis rollout of VC, from March to December 2020, VC accounted for 2.6% of the total number of face-to-face consultations (email and telephone consultations not included)<sup>19</sup> with a peak in the first weeks of the lockdown (approximately 25 000 VCs per week) to a decline as society gradually reopened (approximately 5000 VCs per week).<sup>20–22</sup>

Little research has been conducted that investigates patient users’ experiences with using VC under COVID-19 conditions and how these first experiences might have shaped patients’ attitudes towards future use of VC beyond COVID-19. This is important to investigate because an understanding of patients’ first-user experiences may provide important knowledge and learning points that could help facilitate the implementation of VC and similar technologies more broadly under more normal circumstances (beyond COVID-19).

This study aimed to address the knowledge gap by exploring and analysing patients’ first-time experiences with VC during COVID-19 and how these may shape attitudes towards future use of VC in general practice.

## METHOD

### Study design

A qualitative, interpretative methodology sensitive to individual meanings was chosen to understand research participants’ experiences conveyed through the present interview study.<sup>23</sup> The study adhered to the COREQ (COnsolidated criteria for REporting Qualitative research) principles for reporting qualitative research (online supplemental material).<sup>24</sup>

### Participants

The data set used in the analysis of this paper includes 27 interviews with patients (15 women and 12 men) aged between 23 and 76 years (see table 1). All patients lived in either large or middle-large cities.

### Sampling and recruitment

Because of the small number of patients with VC experience at the time of our data collection, we did not set up any inclusion/exclusion criteria, for example, demographic variables, but used a convenience sampling technique.<sup>25</sup> However, we aimed at securing a variation in age and sex. The participants were recruited using the following strategies: through two GPs (n=17), social media (n=7) and work-related networks (n=3). We asked the GPs to recruit patients with whom they had had successful but also less successful VCs both in regard to technical and communicative conditions. All participants had used VC at least once (however, one patient failed to connect with the GP through the VC and the consultation was transferred to an email consultation). Fourteen out of 17 patients were recruited through the same GP. This GP had chosen to initiate his use of VC with communicating test results, a relatively unproblematic GP task (which could otherwise have been done via email or telephone) before starting to use VC for other health issues.

All participants were unknown to the researchers before study commencement.

The sample size was based on the principle of information power, stopping the recruitment of new participants when sufficient information relevant for the study was achieved.<sup>26</sup>

**Table 1** Participant characteristics

ID, sex, age	Number of VCs	Health condition (what was the VC(s) about)
P01, female, 61 years	2	Test results
P02, female, 59 years	2–3	Test results
P03, male, 76 years	3–4	Test results
P04, male, 67 years	1	Test results
P05, female, 58 years	2	Test results; eczema
P06, female, 32 years	1	Pregnancy
P07, female, 37 years	15–20	Anxiety
P08, male, 59 years	1	COVID-19 symptoms
P09, male, 63 years	3	Test results
P10, female, 27 years	2	Conversation (subject matter not known)
P11, male, 66 years	1	Test results
P12, female, 69 years	1 (+1 with her husband)	Test results; physical examination of elbow
P13, female, 57 years	1 (planned but failed)	Test results
P14, female, 46 years	1	Fever (daughter)
P15, female, 37 years	2	Rash (son) and sprained wrist (self)
P16, male, 43 years	3	Bone pain
P17, male, 43 years	3	COVID-19
P18, male, 58 years	2	COVID-19
P19, female, 41 years	1	Sore throat (daughter)
P20, female, 30 years	2	Psychological issues
P21, male, 42 years	3	Arthritis (son)
P22, male, 28 years	1	Stress
P23, female, 23 years	2	Psychological issues
P24, male, 74 years	4	Hypertension (husband)
P25, female, 50 years	2	Infection in a finger
P26, female, 24 years	1	Pregnancy
P27, male, 44 years	6–8	Arthritis medication

VC, video consultation .

### Patient and public involvement

Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

### Data collection

The interviews were conducted from February to October 2020, separately by two research assistants trained in qualitative methods (ECL and NPC) either via telephone (n=18), online (via Zoom, Skype and Teams) (n=6) or face-to-face in the participant's home (n=2) or interviewer's office on campus (n=1). Since four of the interviews were conducted before lockdown, these interviews were not COVID-19-related but nevertheless answering our question about first-user VC experiences and therefore included in the full sample. An interview guide was developed by an interdisciplinary team, consisting of open and close-ended questions such as: 'How were you introduced to VC?'; 'Did you feel comfortable consulting the GP through VC?'; 'What would you highlight as good/

less good about VC?'; and 'What is your general attitude towards VC?' Questions were revised and refined during the period of data collection, as interviewees served as inspiration for generating new formulations.

Interviews were initiated by a short introduction to the research topic and to the professional background of the interviewer. Interviews lasted between 18 and 50 min, were audio recorded, and transcribed verbatim by ECL (interviews 1–13) and a student assistant (interviews 14–27) concurrently with the data collection. NVivo software (V.12 and V.13) was used for transcription and coding.

### Data analysis

The data were analysed according to Braun and Clarke's thematic analysis approach positioned within a subjective epistemology.<sup>27</sup> EAH, NPC and ECL read and reread transcripts and generated codes, following an initial open (inductive) strategy. EAH categorised the codes into three main themes of 'pre-use reactions and concerns', 'use and perceived quality in communication' and 'post-use

reflections'. In the next analytic round, EAH and ECL identified subthemes checking the compliance between them, the main themes and the meaning in the original transcripts.

Even though an inductive approach to the data were employed, the coders discussed at analytic meetings how their theoretical standpoints and professional positioning (within communication and media studies, medical sociology and telemedicine) might have influenced the data generation and analysis.<sup>28</sup>

## RESULTS

The presentation of the results is outlined through the following main themes and subthemes.

### Pre-use reactions and concerns

#### Better than nothing

Before use, the VC was perceived by several participants as 'better than nothing'. All but one participant described their reaction to being offered VC by their GP as positive and accepting, referring pragmatically to the pandemic conditions. For example, one participant explained:

He [the GP], said, that it [VC], was all he could offer. Then I thought: 'well, yes, I could try that'. I mean, it was better than nothing, and not getting access at all...and you could say that with what we're living through right now, all this COVID-19, I think it's great that we can stay at home. And then still have the possibility of being looked at. (P19, female, 41 years)

The VC was preferred over a telephone consultation since VC enabled the GP to see and not just hear the patient. The visual cues that VC provided were highlighted by participants who had fallen ill with the COVID-19 virus, and for whom the experience of new and unanticipated symptoms had made them feel particularly anxious. Being offered VC felt more reassuring than a telephone consultation since it allowed the GP to literally 'keep an eye' on them on a daily basis. One participant explained: 'Well, in the beginning, I thought that there was no other choice (laughing). But it went much better than expected, and I was really happy that he could keep an eye on me like that. Instead of just relying on the phone' (P17, male, 43 years).

#### Will it work?

Several participants described how being offered VC, and accepting it, had then given rise to a number of pre-use concerns, relating to possible technological difficulties, for example, if they had downloaded the application correctly, and whether the quality of sound and vision would be good enough. However, apart from one patient, all the VCs went ahead successfully without technical problems. Furthermore, concerns relating to the digital waiting room (the practice's virtual area where patients are held until a GP connects the video call) centred

around the risk of being 'forgotten' and, as a consequence, losing one's appointment.

Another pre-use concern among the participants was whether the digital format would make the consultation be over with too quickly:

Interviewer: What were your thoughts when you were offered VC the first time?

P15, female, 37 years: I was thinking, that that's how it is right now. And then afterwards, I started thinking: "Oh, will I be able to?" I mean, it's probably just me worrying about whether I'll remember to say what needs to be said? I mean, so that it won't turn into: "Well, then that's that over and done with"-ish. So, that was probably my first thought.

To sum up, the participants were generally positive, accepting the use of VCs due to the circumstances of COVID-19. The most salient pre-use concerns among the participants related to the technical aspects and whether VC would influence consultation length and GP behaviour.

### Use and perceived quality in communication

#### Knowing the GP

Knowing the GP was for several of the participants a source of reassurance when trying VC for the first time. One participant said: I think if you consulted some random doctor then I'm sure it would not be the same contact you would get through VC (P14, female, 46 years). Knowing the GP was thus highlighted as valuable and even, for some participants, a prerequisite, for obtaining quality in communication in VC. Participants described how it was important for them that their GP knew their skin type if consulting for a rash, their pre-existing conditions, their facial expressions, humour and so on. Knowing one another from the physical consultation room would make the digital interaction feel more 'as if' participants were sitting right next to each other. One participant expressed it thus: 'You know him well, and when you're sitting in front of him on the screen, it's as if you are sitting right in front of him' (P18, male, 58 years). An older participant who was used to video calls with her grandchildren, said that the VC with her GP had felt so 'real' that it was not until the end of the consultation that she was reminded that this time she did not have to exit through the doctor's door.

For a few participants, however, knowing the doctor beforehand did not make any difference to them. These participants added that their relationship to their GP was not particularly 'personal', and so as long as the GP behaved in a professional and responsible manner, any GP would do.

#### Feeling seen and heard

Several participants mentioned that feeling seen and heard by the GP in VC was important for the overall perceived quality of the interaction. In a concrete sense, several participants talked about having had eye contact



with their GP during VC. In a more abstract sense, one participant mentioned that he felt seen during VC as a result of his GP's attentive and affective screen presence: 'He is just such a wonderful person, so he can really handle this' (P17, male, 43years). Others felt seen and heard as a result of their GP giving them time versus rushing things. Some participants believed VC was less rushed than an in-clinic visit: 'So, it feels like that there is a little more time. It's not as rushed' (P07, female, 37years). Additionally, some participants explicitly mentioned the value of the GP taking his/her time for 'small talk', for example, asking questions about one's holiday or pet, etc, just as the GP would do in a physical consultation.

Another GP behaviour that prompted the feeling of being seen and heard during the VC was when the GP meta communicated to tell the patients what he/she was seeing/observing. For example, one of the COVID-19 patients who was nervous that the GP would not be able to see or hear her respiratory problems was calmed down by the GP saying: 'I can see that you're struggling to breathe' (P17, male, 43years).

#### A focused or rushed consultation type?

Several participants perceived VC as a high-quality consultation type that facilitated efficient and focused interaction with the GP. As one participant stated: 'You're on when you're on. And that's how it is. So, I actually think that it's intensely and properly done' (P07, female, 37years).

In contrast, one participant experienced the VC as constraining because she felt under pressure to present her problem at once and to present one problem only, whereas in a physical consultation she would feel freer to present additional concerns. She described a potential concern of VC being a rushed and abrupt interaction form: 'Bam, bam, bam, finished, shuts down quickly, moving on to the next' (P15, female, 37years). Another participant noted that although the VC was not shorter than a physical consultation, and even though she felt both seen and heard by her GP, she was left with precisely the feeling of the consultation being shorter. Furthermore, she was convinced that a physical consultation would facilitate greater patient involvement: 'I am quite certain that when you're in a physical consultation, you say more than you do during a video consultation' (P14, female, 46years).

#### Post-use reflections about future use

##### Using VC for a large number of needs

Most participants were convinced that many health issues could be dealt with through VC except for direct physical examinations and injections. These health issues included small, non-acute health issues, for example, follow-ups on medication use, delivery of test results, dermatological conditions, for example, rashes, and mental conditions.

One participant noted that although VC could be used for 'pretty much everything', he would want to go for a

physical consultation occasionally in order to revitalise the 'human contact'.

If serious illness arose, or if one had to receive a bad message, a physical consultation was the consultation form preferred by most participants. When prompted to give reasons for this preference, participants' answers were indecisive or vague. Participants said that they would need to feel the GP's 'presence', 'comfort' or 'humanness'.

Another participant, while reflecting on why he would prefer to receive bad news in person, changed his point of view as he spoke, concluding that rather than needing the doctor to comfort him he would instead need his personal relations and network. Another participant preferred receiving a bad message at home where he could cry and hide his face in a pillow rather than having to sit in his car processing the bad news on his way home.

#### The digitalisation development

Many participants reported an awareness of the increased digitalisation of society including the healthcare sector. Most participants were used to using video meetings in work and educational spheres and with family and friends. Moreover, one participant talked about a certain digital maturity she had developed during the COVID-19 lockdown:

At the time [in the beginning of the COVID-19 lockdown] we were not as well-versed in Teams-meetings as we are now. We have become so during the last 5 or 6 months. So, everything has changed a bit in relation to getting more and more used to more things happening on screen than before, right? (P07, female, 37years)

In fact, one participant emphasised the benefits of implementing VC on a societal and environmental level: 'Yes, in all areas, it would be really good for our society if we would do it (use VC in general practice). Because it would result in CO<sub>2</sub> reduction and things like that. It would be so cool, if you could do it (going to the doctor) like this' (P16, male, 43years).

Other patients expressed a deterministic view on the digitalisation of society. For example, one participant stated that: 'That's the way it's going anyway, so no matter what, I think that you have to get used to getting more and more of this kind of thing' (P27, male, 44years).

Despite commenting on VC as a natural part of the digitalisation development, while considering their own media use and experiences several participants also expressed concerns about older citizens who might not be technologically able.

#### Hoping to use VC in the future

Despite the above challenges and concerns in relation to future VC implementation, most of the participants expressed a post-use excitement in respect to VC, talking of how they would choose it as consultation form again if their GP agreed. Furthermore, the participants talked

about recommending it to others and hoped that this new consultation type would be adopted in future general practice.

One participant said that he had never thought it possible that VC would have been made an option and that, seen in retrospect, everything would have been so much easier had the opportunity been made available sooner.

The convenience, flexibility and efficiency aspects of VC were dominant in post-use reflections among participants across ages and life situations. For example, for the young parents who did not have to leave home with small children: 'It's nice that you can sit at home and just pick her up from the kindergarten and then we could actually have a consultation right afterwards. So we didn't have to bring her in together with her little brother...', (P15, female, 37 years) for the sight-impaired middle-aged man depending on help for transportation, the middle-aged people having to take time off work (and some having to pay for their missing work hours): 'It's both time-saving for him and for me. I can still be at work and just pull over and call him and then I just continue my work.' (P18, male, 58 years) and lastly for the older patients having trouble with parking and walking.

## DISCUSSION

Understanding patients' first experiences with VC in a general practice setting against the background of a pandemic is critical to gathering a deeper understanding of the willingness to use the VC technology beyond COVID-19.

The findings of this study were to a large part in concert with results from international studies, for example, from primary care in New Zealand and Poland, investigating patients' satisfaction from teleconsultations (including VC), through the COVID-19 pandemic.<sup>29 30</sup> Our findings, as international findings also indicated, showed a high level of satisfaction and overall willingness to consult their GP through VC, given the COVID-19 circumstances, especially with non-acute health issues and in pre-existing doctor-patient relationships. It is evident throughout our findings that the COVID-19 situation has had an impact on how patients have perceived use of VC describing it as 'Better than nothing' and as better compared with other virtual consultations (email and telephone). Nevertheless, being first-users, participants experienced pre-use concerns relating to potential technical challenges, the virtual waiting room and the quality of sound and vision. These concerns were not realised for most of the participants. On the contrary, participants described positive experiences with the technology overall, highlighting human factors as playing a significant role in establishing a secure and trusting VC climate and shaping positive attitudes towards future VC use. The fact that no technological problems were encountered among the patients of this study (apart from one case) confirms the relationship

highlighted in other studies between patient satisfaction with telehealth and ease of use.<sup>31</sup>

Our study has some weaknesses. First, most of the participants' motivation for VC use was related in the first instance to the circumstances surrounding COVID-19, including restricted access to healthcare delivery. This is likely to have biased the results in favour of VC, since VC provided them with a unique opportunity to consult their GP 'face-to-face'. However, for four of our informants COVID-19 and, as our findings show, several of the participants mentioned that they wished VC had been introduced earlier and that they hoped for future adoption in general practice beyond COVID-19.

Second, the convenience sampling might have limited the transferability of the study results in that those who agreed to participate in the interviews might have represented a particular positive attitude towards use of technology and familiarity with using digital technologies on a daily basis. Furthermore, it might have influenced the results that all participants had used VC at least once (possibly having gained some familiarity with the technology) and that all participants were living in cities, thus constituting a population in Denmark which has been shown to be more educated and less reluctant towards telehealth solutions than participants from a rural population.<sup>32</sup> Third, our study represents the patient perspective only. As our findings indicate, patients' experiences are critically influenced by clinicians' behaviour and attitudes towards the VC technology. Investigating the inter-relationship between patients' and GPs' first-time experiences, and how they might be in tension or alignment, could thus have strengthened the analysis and practice implications of the study. Fourth, from a methodological perspective it might be considered a limitation that two different interviewers generated the data since the subjective influence of each person on the data becomes less transparent. However, having two researchers with different disciplinary backgrounds generate the data are also a way of increasing the trustworthiness of the study results through triangulation and may also be considered a strength.

Our findings offer novel insights into how human factors matter in digital health encounters, issues that are well-documented in research on the physical consultation but less so in relation to telemedicine encounters.<sup>33</sup> Consulting one's GP with whom one has already established a trusting relationship seemed to play a significant role in forming the first positive VC experiences for several of the participants. This finding thus suggests that in order for VC to function successfully for most people, it needs a relational anchoring. However, for some patients knowing the GP was not a specified desire, which might indicate something about the quality of their relationship—or simply variety in patient preferences and expectations. Studies are still needed that investigate the influence of relational continuity—and continuity of care—for future patient—and clinician adoption of VC.

Importance was attributed by all participants to overall relational and communicative competences, an attentive use of verbal and non-verbal communication strategies (small talk, meta communication, active listening, eye contact, posture, etc). Our findings show how eye contact appeared to play a significant role in establishing a feeling of being seen and heard which former research has highlighted as critical for the enhancement of the person-centred and affective components of interaction.<sup>34 35</sup> The findings indicate that although direct eye contact is not possible to establish through a screen-to-screen interaction,<sup>36</sup> an attentive behaviour of the GP that signals a focused attention in which looking and listening are happening simultaneously is key to a positive VC experience.

While most participants did not experience that VC led to decreases in quality of care, it is worth noticing that a few participants experienced a reduced ability to express themselves in VC in comparison with a physical consultation, referring to VC as representing a rushed interactional environment. In terms of interaction, VC has been characterised as less spontaneous and free flowing than physical consultations, leading to fewer issues addressed, shorter consultation length and less patient participation.<sup>37 38</sup> It remains to be determined whether these characteristics are a result of the VC technology itself or of psychological and technical barriers among users that lead to a certain behaviour and interaction form. The fact that our findings show that a few participants experienced the VC as short and rushed, point to the importance of agenda-setting in digital consultations, that is, ensuring that patients' additional concerns (so-called 'doorknob questions') are not left out.<sup>39-41</sup>

Overall, the concern voiced by clinicians<sup>5</sup> that the interaction between provider and patient, and thus quality of care, might decrease through VC is not substantiated in the findings of this study. While a physical encounter may offer ideal communicative conditions for many people (but not all), it does not necessarily guarantee successful communication. Thus, whether VC is a success or not relies on multiple patient, clinician and contextual factors, including personal preferences, prior experiences, information technology (IT) literacy, structural and organisational incentives and so on. As described, many participants reported an awareness of the increased digitalisation of society, including the healthcare sector. Denmark is one of the countries in the world that for many years has been the first and fastest to invest in digitalisation, and where citizens, businesses and the public sector have been seen to exploit the opportunities more than in other developed countries.<sup>42</sup> According to the European Commission's Digital Economy and Society Index,<sup>43</sup> Denmark ranks first in connectivity in 2021 with 94% of households connected to very-high-capacity networks and 71% to fibre. Furthermore, 5G mobile-broadband coverage is one of the highest in the European Union at 80% of populated areas. In terms of email consultations in general practice, a study found that Denmark

had the highest numbers of email consultation sent/received in Europe.<sup>44</sup> Investigating the so called 'digital divide' in online public healthcare in Denmark, focusing specifically on email consultation data, Andersen *et al*<sup>45</sup> concluded that while concerns about digital divide issues remain in online healthcare communication, the uptake of e-visits does not widen the socioeconomic, gender or age gaps.<sup>45</sup> A new study conducted for the organisation 'Danish Patients' shows that four out of 10 older people between 60 and 80 years of age wish to be able to choose a digital consultation with their GP if the problem can be handled as well digitally as by physical attendance<sup>46</sup> and another recent investigation shows that 55% of Danes wish for more digital dialogue with their health services.<sup>47</sup> Although those at the 'right' side (younger and IT-literate people) of the digital divide in Denmark are benefitting much more from online healthcare communication than those at the 'wrong' side (eg, ethnic minorities and older people),<sup>45</sup> and might also be those who are selected by healthcare professionals to use VCs, Denmark's status as digital forerunner might create greater opportunities for VC roll out, and for equity of access to healthcare, than in other developed countries (eg, UK, USA and China), where COVID-19 has widened the digital divide in disadvantaged patient populations.<sup>48 49</sup> The low uptake of VC in general practice in Denmark might therefore be more attributable to organisational barriers and challenges within general practice, an aspect highlighted by other international authors,<sup>50</sup> than difficulties in utilisation of digital technologies among disadvantaged patient groups. A study about Danish GPs' awareness of the increased digitalisation of society and how this development impacts on their attitudes towards health technology in general, and VC in particular, would add interesting and relevant knowledge for those who wish to implement VC in primary care, for example, neighbouring countries.

## CONCLUSION

Our findings contribute with knowledge about first-user experiences of VC in general practice in Denmark against the background of COVID-19. Participants showed positive attitudes towards past as well as future use of VC as either a supplementary or alternative consultation form in general practice. As such, our findings indicate that COVID-19 opened a 'window of opportunity'<sup>51</sup> for an initial episode of acceptance and adaptation of VC among patients in general practice in Denmark. Whether the general attitudes among GPs towards future VC use match the overall positive ones of Danish patients is still to be determined. There is a need for a future large-scale study, including a multimethod approach, investigating the perspectives of both patient and GP users of VC.

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**Acknowledgements** We would like to thank all participants for sharing their experiences. We would also like to thank student assistant Helene Lausten Jørgensen for transcribing interviews 13-27.



**Contributors** EAH, AG, NPC and ECL conceived and designed the study. All interviews were carried out by NPC and ECL. EAH, NPC and ECL coded and interpreted the data. EAH and ECL drafted the manuscript. All authors read, edited and approved the final manuscript. CJ proofread the manuscript. All authors had full access to all of the data in the study and can take responsibility for the integrity of the data and the accuracy of the data analysis. EAH acts as guarantor and 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 study was supported by the University of Southern Denmark. Grant number: no award/grant number.

**Competing interests** None declared.

**Patient and public involvement** Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

**Patient consent for publication** Consent obtained directly from patient(s).

**Ethics approval** The study has been reported and approved (approval number 10.971) by the Research & Innovation Organisation (RIO) at the University of Southern Denmark. Participants gave informed consent to participate in the study before taking part.

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

**Data availability statement** No data are available.

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