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Article – Open section

Collaborative domestication

How patients account for their experience of video consultations with their general practitioner

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Abstract

This article proposes an extension to domestication theory by introducing the concept of collaborative domestication, which we define as the ongoing mutual influence and interdependence of technology users in specific interactional contexts. This concept arose from our investigation of how patients integrate healthcare-related video consultations into their daily lives. In Denmark, the Covid-19 pandemic has expedited the implementation of video consultations in general practice, yet little is known about their use in this context. To address this, we conducted 13 interviews with patients and analysed the interviews from the perspective of domestication theory. We find that the general practitioner plays a central role throughout patients' domestication processes, and the doctor–patient relationship significantly influences how patients experience video consultations. We argue that there is a collaborative aspect to domesticating video consultations that needs to be considered in both future studies and the ongoing implementation of video consultations.

Keywords

digital health, video consultations, collaborative domestication, qualitative approach, doctor–patient communication

Introduction

Access to medical consultations has expanded over the past decade, and video consultations now supplement the consultations that are conducted by telephone, by e-mail, physical consultations in a clinic or during a home visit (Donaghy et al., 2019; Lüchau, 2020). The use of media and communication technologies and successful digitalisation are crucial for meeting needs and confronting challenges in all parts of the healthcare system, both today and in the future (Sundheds- og Ældreministeriet et al., 2018). This study was conducted in Denmark, which in 2020 led the 193 United Nations member states in terms of digital government (United Nations, 2020), making it an important case to investigate.

With regard to general practice, which was our concern in the present study, the number of general practitioners (GPs) is decreasing, while the number of patients is increasing. Because of this, GPs are facing mounting work-related pressure, and patients are struggling to find medical clinics that are accepting new patients. In addition, as GPs are having to accommodate more patients, they now have less time to spend with each of them (Praktiserende Lægers Organisation [PLO], 2019). Danish Regions [Danske Regioner], the interest organisation for all five Danish regions that is jointly liable for the development of the Danish healthcare sector, has the ambition that in the future, every third visit to the general practitioner takes place virtually, to make healthcare services easier to access and more efficient for patients (Lose & Astman, 2018). Thus, in early 2019, video consultations were introduced for general practice on a trial basis (Medcom, 2021). A video consultation is the "use of real-time video and audio for communicating (consulting, teaching, discussing) treatment" (Osman et al., 2018, p. 2). Patients can use either a tablet or a smartphone to consult with their GP through an app called Min Læge [My Doctor] (PLO & Sundheds- og Ældreministeriet, n.d.).

While the use of video consultations in general practice in Denmark began on trial basis, the Danish Organisation of General Practitioners made video consultations accessible to all GPs in the spring of 2020 due to the outbreak of Covid-19 (Melbye, 2020). The use of video consultations increased after March of 2020, and between March 24 and June 29, more than 70,000 video consultations have been conducted (Danske Regioner, 2020). However, research about the use of video consultations in general practice is sparse. Half of the existing studies about patients' experiences of video consultations with GPs focus on possible future uses of video consultations, not actual user experiences (Chudner et al., 2019; Gardner et al., 2015; Huang et al., 2016; Leng et al., 2016; Nymberg et al., 2019). In addition, conclusions from these studies are mixed: Some patients were positive about the use of video consultations, while others were sceptical, or even reluctant to use, video consultations and preferred physical consultations.

We have identified four studies that address actual patients' experiences with video consultations in a general practice setting. In one, which was based on 19 interviews with American patients, Powell et al. (2017) concluded that some patients felt more secure in video consultations than in physical consultations with a GP. In contrast, others expressed

a preference for receiving serious news via video so they could be in a safe environment, such as their home. Patient concerns included issues of privacy and surroundings, such as being overheard during their consultation. Another study (Donaghy et al., 2019) based on 21 patient interviews in Britain concluded that video consultations were perceived as more advantageous than telephone consultations and more time efficient than physical consultations. However, the authors also found that the patients preferred physical consultations for complex or sensitive topics. Similarly, Hammersley et al. (2019) concluded, on the basis of a questionnaire, that patients preferred physical encounters, though video consultations were also found acceptable. Finally, Reed et al. (2019) surmised, also on the basis of a questionnaire, that video consultations could improve American patients' opportunities for and access to healthcare; however, the authors did not elaborate on why or how.

These studies present the pros and cons of video consultations as experienced by patients, but they do not provide additional insight or details on how patients approach the use of video consultations, how they integrate video consultations into their daily lives, or specific patient experiences. To be able to successfully implement video consultations in general practice, practitioners need more research-based knowledge about video consultations (Petersen, 2020). This has become an urgent matter, as during the Covid-19 pandemic lockdown and controlled re-opening of society, the Danish Health Authority stressed that telephone- and video consultations must continue to be the primary consultation form for general practice (Dansk Selskab for Almen Medicin, 2020). Furthermore, researchers have stressed the need for in-depth studies that take the context of the video consultation into account, in order to gain a deeper understanding of GPs' and patients' experiences (Kahn, 2015; Sabesan et al., 2014).

One way to accommodate these requests is by studying how video consultations are perceived from a social constructivist domestication perspective. The domestication framework is useful for gaining in-depth knowledge about patients' attempts to embed video consultations into their daily lives and specific social contexts (Berker et al., 2006). By using this theoretical approach, we hope to contribute detailed insights into patients' initial uptake of video consultations, the spatial and temporal aspects of their use of video consultations, and what consequences video consultations might have for the doctor–patient interactions and relations. In addition, domestication theory offers a holistic understanding of the process patients undergo when using this consultation form by analytically dividing the use of video consultations into four different, but interconnected, phases. Compared with the empirically driven thematic analyses that are often used in studies of telemedicine, the use of domestication theory adds structure to the process of patients' application of technology by unifying the different aspects of technology use (Haddon, 2003).

There are several examples of domestication theory previously being used to analyse the utilisation of information and communication technologies (ICTs) in healthcare: in studies of follow-up care at a rehabilitation clinic through webcam technology (Pols & Willems, 2011); video conferencing in psychiatric emergencies (Trondsen et al., 2012); the

use of social alarms in caring practices (Stokke, 2017); and the implementation of personal emergency response systems (PERS) at nursing homes (Chang et al., 2020). However, to our knowledge, video consultations in the context of general practice have not yet been examined through the lens of domestication theory. As the aim of this study is to gain a deeper understanding of how video consultations are experienced by patients, domestication theory is highly suitable, and the aforementioned studies support the benefits of and needs for examining the use of ICTs in healthcare from a domestication perspective. For example, Pols and Willems (2011) concluded that webcam technology led to users having both new problems and new goals during a process of experimenting with the technology. The authors further stressed that traditional quantitative evaluations would not have revealed these evolving and uncertain goals. Moreover, Chang et al. (2020) stressed that domestication theory helped them understand the underlying reasons for different discrepancies in the implementation of PERS.

The aim of this article is to answer the following research question: How do patients account for their experience of video consultations from the perspective of domestication theory?

Theoretical and methodological framework

Domestication theory

The concept of domestication focuses on describing and analysing the processes of acceptance and rejection within the use of media technologies (Berker et al., 2006). It presents a theoretical framework with which to consider the complexity of the integration of a media technology in people's everyday lives (Berker et al., 2006). Domestication theory emphasises that the use and meaning of media technology is negotiated in an interplay between the user, the media technology, and the context (Berker et al., 2006). Thus, video consultations are integrated into the daily routines of patients and are shaped to match the existing practices of the patients (Silverstone & Haddon, 1996). Consequently, the domestication of video consultations can differ from patient to patient.

Silverstone, who founded domestication theory (Hartmann, 2013), has divided the domestication process into four phases: appropriation, objectification, incorporation, and conversion (Silverstone et al., 1992). Appropriation refers to the initial use of the technology: A technology is appropriated when an individual takes possession of it (Silverstone et al., 1992). Objectification refers to the use and spatial disposition of the technology and to the construction of the environment that surrounds it (Silverstone et al., 1992). Incorporation refers to the functionality of the technology and the way it is incorporated in a user's daily routines (Silverstone et al., 1992). While objectification focuses on the spatial integration of the technology, incorporation focuses on its temporal integration. Finally, conversion is how the technology helps define the relationship between the user and the world: Conversion links the experience of the appropriation of the technology to the user's skills

and societal status in public (Silverstone et al., 1992). These four phases are related, but they should not be understood linearly. There is often a continuous dynamic between technology and users (Berker et al., 2006), and therefore, domestication is an ongoing process with overlapping and recurring phases (Scheerder et al., 2019). Consequently, the phases do not necessarily lead to the completed and successful domestication of a technology (Haddon, 2003). Only when a technology has become routine can it be perceived as reliable and trustworthy, and only when it is not causing problems or frustrations can the domestication of that technology be considered successful (Berker et al., 2006). However, the use of video consultations is still in an early stage, so it cannot be assumed that video consultations have been domesticated and turned into common practices by patients. Nevertheless, by using domestication theory, we will be able to examine patients' experiences of video consultations in their process of successfully domesticating them.

Originally, domestication theory focused on "the moral economy of the household", with a household "conceived as part of a transactional system of economic and social relations within the formal or more objective economy and society of the public sphere" (Silverstone et al., 1992, p. 16). When a new commodity is domesticated, it is "incorporated and redefined in different terms, in accordance with the household's own values and interests" (Silverstone et al., 1992, p. 16). However, focus on the household has been an ongoing discussion point in the development and dissemination of domestication theory (e.g., Morley, 2006; Silverstone, 2006), as the boundaries of the household are breaking down due to social and technological changes (Silverstone, 2006). Moreover, the theory has been used to analyse mobile and individual technologies (e.g., Hartmann, 2013), making the household a less suitable point of departure in the domestication process. Since video consultation technology is mobile and meant for individual use, the focus in this study will be on individual patients and not entire households.

Method

We designed this study as a qualitative case study (Yin, 2018) to answer the research question. As with other qualitative studies, the results of this study cannot be considered representative of every population, but they can serve as a contribution to the collective accumulation of knowledge about video consultations (Flyvbjerg, 2020). Through a convenience sampling, the study's participants included thirteen patients, six female and seven male, between the age of 27 and 76, all of whom belong to the same medical clinic in a larger Danish city within the Region of Southern Denmark. We initiated contact with one of the two GPs who owns the clinic through our professional network, and the recruitment of the patients took place via this GP. In addition to physical consultations, the clinic offers online booking, telephone consultations, e-mail consultations, home visits for older patients with chronic conditions, and video consultations. At the time of this study, the GP had been interested in the use of video consultations for several years and started using them. MedCom, a non-profit organisation financed and owned by the Ministry of

Health, Danish Regions, and Local Government Denmark, launched their pilot project in March 2019. Consequently, the GP can be described as a pioneer with regard to video consultations; hence, he is not likely to represent the typical GP.

At the time of our data collection, the clinic had completed about 50 video consultations with approximately 30–40 patients. Initially, the clinic offered video consultations to patients with chronic diseases and those patients described by the GP as "unproblematic", meaning patients whose consultation could have been dealt with via e-mail or telephone, for instance, to discuss unproblematic test results. The GP then started offering video consultations to patients with more severe diseases and those with psychological disorders. Because of the small number of patients with video consultation experience at the time of our data collection, we did not establish inclusion/exclusion criteria, e.g., demographic variables, but asked the GP to help us contact any patient who would be interested in participating in the study. We wanted to include both users and non-users of video consultations in the study in order to get different perspectives (see Table 1). While eleven participants were video consultation users, one non-user was also included. Furthermore, one patient was unable to complete her planned video consultation, thus she had not yet tried it.

The interviews took place between February and October 2020, before, during, and after the Covid-19 lock-down in Denmark. However, Covid-19 was not the reason this study was conducted. All interviews were conducted by the first author either by phone or a meeting with the patient in his/her home or in the first author's office. Interviews lasted from 15 to 32 minutes and followed a semi-structured interview guide (Kvale & Brinkmann, 2015). Examples of interview questions including the following: "What do you think works particularly well in video consultations?" "Can you explain how your last video consultation went and what happened?" "How were you introduced to video consultations?" The research aim and procedure were explained before each interview. All participants were informed that participation in the study was voluntary, and they gave written consent. The study was approved by the Research and Innovation Organisation (RIO) of the University of Southern Denmark and was conducted in accordance with the General Data Protection Regulation (GDPR).

Each interview was audio-recorded, transcribed verbatim, and coded using NVivo software (version 12) by the first author. The codes were then divided into the four domestication phases and discussed by both authors. The research question and domestication theory provided the main objective for the analysis. The codes arose from the data and were not predefined. Thus, our analytical process can be defined as abductive, in which we extracted codes from the data and later applied theory to categorise the codes (Schröder et al., 2003 as cited in Iversen, 2017).

Name (pseudonym)	Sex	Age	Profession	Number of video consultations	Media platform used for video consultation
Alice	Female	57	Childminder	0 (1 planned)	(Tablet)
Caroline	Female	27	Student	2	Smartphone
Emma	Female	37	Chief secretary	15–20	Smartphone
Helen	Female	58	Disability pensioner (former gardener)	2	Tablet and smartphone
Mary	Female	59	Technical service assistant	2–3	Smartphone
Sarah	Female	32	Commercial coordinator	1	Smartphone
Susan	Female	61	Childminder	2	Tablet
Christopher	Male	59	Boilermaker	1	Smartphone
David	Male	63	Pensioner	3	Smartphone
Earl	Male	66	Pensioner (former brewery worker)	0	-
Peter	Male	67	Masterpainter	1	Smartphone
Scott	Male	76	Pensioner (previously worked with IT)	3–4	Tablet
Thomas	Male	66	Technical service assistant	1	Smartphone

Table 1. Patients and the number of video consultations each patient accomplished

Analysis

Appropriation

When exploring patients' appropriation of video consultations, three aspects came to the fore. Patients' initial use or rejection of use were influenced by 1) the GP, 2) their existing media habits and level of technological competence, and (in some cases) 3) family members.

Our data shows that a GP plays an important role in a patient's adoption of video consultations. In most cases, the GP initiated the video consultation, and almost all patients first heard about video consultations when the GP or the GP's secretary asked them if they wanted to try it. As a result, most video consultations were initiated by the GP and not the patient, showing that the GP plays a decisive role in getting patients to start using video consultations. After agreeing to a video consultation, the type and amount of information each patient received before the first video consultation differed significantly. Some patients were given an information pamphlet while others were guided through the video consultation app on their smartphone. However, some patients received neither the information pamphlet nor any guidance. While most patients stated that the amount of information they received was sufficient, others complained about a lack of guidance from the GP.

Whether or not the information provided by the GP was perceived as sufficient may be related to patients' technological competence levels. In spite of the fact that most patients had used video software such as FaceTime or Skype with their family, not all were equally confident trying video consultations. Some patients felt very confident because they were used to working with IT or had a general interest in new technologies. For example, one patient referred to himself as a "child at heart" who enjoys playing around with new technologies (Thomas, 66). However, others had little experience with video meetings and apps and were more insecure prior to their first video consultation. For some patients, technological insecurity exceeded their will to try a video consultation. As one patient explained about his technological competencies:

> I am one of those types that – if it is because of my age, I do not know – but I was slow in getting on Facebook and I found it difficult to use e-Boks, NemId [Danish public apps] and what else we have today, right? (Earl, 66)

The choice of media platform also played a role in the patients' first video consultations. The video consultation software takes the form of an app and can therefore not be used on a computer, hence patients could only use a tablet or a smartphone to conduct the video consultation. Various reasons were given for the choice of device. Thomas (66) explained that he wanted to continue using his smartphone, saying, "I'm so happy with my new phone". Susan (61) chose to use her tablet because it was the platform she used most in her daily life: "I feel most confident using the tablet". For Helen (58), the choice of device was essential: Due to her hearing disability, her first video consultation on her smartphone was not a success. However, when she later had a video consultation on a tablet, she could lip-read what the GP was saying, leading to a successful outcome. Similarly, Susan (61) explained how she planned on trying different ways of using the video consultation software in order to solve some technical issues she experienced. For some patients, family members had a crucial impact on their decision to try video consultations. One patient was highly encouraged by her husband to try video consultations. When asked if she would have had a video consultation without her husband's influence, she replied, "No, I actually do not think so" (Mary, 59). On the other hand, another patient had his scepticism about video consultations confirmed by his wife, who supported his decision to decline the offer from the GP to try a video consultation. The patient explained how they had discussed video consultations, and that "she does not want to use it either. We both prefer to speak to the doctor in person" (Earl, 66). In spite of different attitudes towards and experiences with technology in general, and video communication technologies in particular, most patients described the first video consultation as successful, although some technical problems occurred. Moreover, all of the patients, including Alice (57) who had a failed video consultation, and even Earl (66), who declined having a video consultation, were optimistic about video consultations and wanted to use them in the future. For some patients, their future use depended on acquiring sufficient

technological support, while others needed time to mentally prepare for the digital transformation of how they consult their GP.

As can be seen, the appropriation process was primarily initiated by the GP, but in some cases, it was also influenced by family members. After agreeing to try video consultations, the experience was different for each individual patient, with emotions ranging from insecurity to confidence, depending on the patient's technological competence level. Interestingly, although first encounters were not necessarily an immediate success, our data shows overriding optimism about future use of video consultations, and the patients were actively committed to making video consultations work. One possible explanation for this optimism could be that the interviewed patients had a high degree of willingness to cooperate and accommodate the GP's wishes, due to having pronounced satisfaction with him.

Objectification

With a few exceptions, most of the interviewed patients were at home during their video consultation. The choice to be at home is consistent with the dominant discourse in studies of telemedicine, in which the home is often mentioned as the location used to conduct healthcare services (see e.g. Lupton, 2018; Oudshoorn, 2011; Sundheds- og Ældreministeriet et al., 2018). Several patients expressed feelings of comfort and safety related to having the consultation in their home. For example, Thomas (66) explained: "The good thing about it is that it takes place in a relaxed way. You are at home, you are in familiar surroundings, safe surroundings". The possibility of having a video consultation elsewhere, e.g., at their workplace, was also articulated by the patients. However, while many expressed that they had the opportunity, only three of them conducted a video consultation elsewhere: in a car (Sarah, 32), a summerhouse (Peter, 67), and at work (Emma, 37). Hence, conducting video consultations in places other than the home was a rare occurrence, but it is a future possibility for the interviewed patients.

Our data shows that the patients' placement within the home during video consultations was primarily based on routines and habits, though some patients chose their placement based on where they could ensure an uninterrupted video consultation. All of the patients chose to sit in the exact same place in their home during each video consultation. Most patients stayed in their kitchen or living room and could not give any specific explanation for this. For example, one patient expressed: "I usually always sit here" (Alice, 57). Other patients mentioned the lighting and background as specific considerations for choosing a location. For example, Scott (76) explained:

> I chose to sit the same place every time we have had a video [consultation]. Ehm… because I want to have good lighting on my picture, you know, sent to the GP. So that he can see me.

Similarly, Susan (61) used her home office in order to be alone and avoid background noise. These choices seemed to be based on the aim of achieving the best quality video consultation possible. As with the appropriation phase, this shows the patients' active commitment to making the video consultation work well.

Moreover, being home during a video consultation created opportunities for some patients to involve a family member. While most patients were alone during their video consultation, two patients' spouses were in the same room. Moreover, several patients found involving a family member to be beneficial, e.g., if they had to consult the GP about something serious and wanted to have emotional support. Furthermore, involving a family member was perceived to be beneficial in terms of understanding the information from the GP. For example, Peter (67) explained: "Two sets of ears hear better than one. So it might be the case that […] if it was a serious matter, I think it would be nice to have someone with me". In addition, Susan (61) pointed out that a family member can join a video consultation without being in the same location as the GP or the patient. Hence, video consultations make the involvement of family members possible in two ways: The home setting makes it easy for the patients to involve family members, and it also provides the ability to invite relatives in any location to join a video consultation.

However, our data shows that the presence of family members in the home also created challenges for some patients, specifically those who did not want their children to be present during or overhear their video consultations. For example, Emma (37) explained how it was difficult for her to make sure her daughter could not listen to her video consultations. Thus, being at home during video consultations posed both opportunities and challenges concerning the involvement of family members.

To summarise, the home was the primary location for the interviewed patients to conduct video consultations. The home offers a safe and familiar environment, but it poses both obstacles and opportunities because patients need to consider the presence of their family members. This may challenge doctor–patient confidentiality, which must not be taken for granted when consultations are moved outside the GP's physical consultation room.

Incorporation

When exploring how the interviewed patients incorporated video consultations into their daily lives, three factors emerged from our data: convenience, logistical barriers to accessing the GP, and waiting time. Convenience was found to play a significant role in how patients incorporated video consultations into their daily lives. The perceived convenience of video consultations was mainly related to time efficiency and spatial independence. Saving transportation time was also viewed as important. For example, Thomas (66) noted that although waiting time was not eliminated from video consultations, transportation time was. Similarly, Helen (58) highlighted the time saved by not having to travel: "It's nice and easy to go to the GP and then you're home again right away, right?"

For other patients, access to a GP during working hours was limited due to transportation considerations. Moreover, the patients' working hours often clashed with the GP's working hours, so consultations had to be held on their day off. Video consultations allowed the patients to maximize their free time, for example, as described by Mary (59):

> I actually have to take a lot of time off to get to [GP's name]. It's good that I can do it at home on a day off. And otherwise I have to ask my workplace if I can get time off, and that is not always a good idea.

Not only did video consultations make access to the GP easier and more convenient, but they also helped solve more difficult logistical challenges that some patients experienced. For example, Susan (61) and Alice (57) scheduled their video consultations in the narrow window of time between when they get off work and when the GP's practice closed. Not having to spend time driving to the GP made these consultations possible. Clearly, video consultations can be easily integrated into a patient's daily routine when transportation time is no longer a concern.

Similarly, Sarah (32) had a logistical challenge which she solved by having the video consultation in her car on her way to work. Because Sarah's workplace is located far from both her home and the clinic, it is extremely time consuming for her to leave work during the day to go to the medical clinic. While Sarah was not averse to conducting video consultations at her workplace in general, this specific consultation was of an intimate nature that Sarah did not feel comfortable discussing while at work, despite the possibility of sitting in a private, soundproof room. The confidential nature of this consultation became a barrier to integrating a video consultation into Sarah's daily routines. Thus, she came up with what she described as "an odd solution being in her car". As with the issue of the presence of family members, the need for privacy and doctor–patient confidentiality influenced the way patients incorporated video consultations into their daily routines.

Based on our data from the interviews, the patients' needs for improved optimisation of time ranged from matters of convenience to actual logistical challenges. However, even with video consultations, the patients experienced waiting times. For example, Susan (61) explained how she waited for a longer period of time at home before a video consultation than when she would visit the clinic. Similarly, Peter (67) explained how he chose to sit and wait because it was his first video consultation:

> No, I was just sitting [laughing], because it was new to me. So I sat on that couch and then I logged on and then I waited until it came. Of course, I could have run around, then I had to wear my earpiece so I could hear. But no, I sat down and waited. But maybe it's because it's the first time, you're a little excited about how it's going to be and so on.

While some patients did not mind the waiting time, others did. For example, Emma (37) expressed annoyance about having to constantly check her smartphone during the wait-

ing time before a video consultation. However, she could see potential for utilising her time better if the technology were to improve:

> There is often a lot of waiting time and I think that is very annoying because you cannot just leave your phone because then it goes off. So you have to be very aware, when it is. That is in fact the only disadvantage. It would be nicer if they could call you. Then you do not have 25 minutes of wasted time where you must constantly swipe something on your phone to make sure it [the virtual waiting room] stays active. Because this would mean that I could do something else simultaneously.

Though the patients still spent time in a virtual waiting room while waiting for their video consultations, the freedom to choose their location for the waiting time was perceived as a significant benefit. Consequently, a new type of waiting time has emerged that gives patients more options for how they spend the waiting time, depending on whether they wish to optimise their time or prepare for the video consultation.

In sum, video consultations provided the interviewed patients with more convenient access to the GP and, for some, a solution to logistical barriers. In addition, the interviewed patients experienced enhanced flexibility with regard to the time they spent waiting before their consultation.

Conversion

When examining how video consultations help define the relationship between the patient and the world, our data revealed that the doctor–patient relationship is of crucial importance and it is therefore the focal point in the following analysis. Within the social context of video consultations, the patient's status in public (Silverstone et al., 1992) is understood as the patient's status in relation to the GP, with the GP being representative of the public. During the interviews, the patients revealed several perceived limitations to using video consultations that had implications for the definition of the doctor–patient relationship; for example, difficulty in establishing a new relationship, absence of small talk, unsuitability for discussing serious matters, and scepticism about a physical examination.

According to most of the interviewed patients, video consultations were suitable for maintaining a relationship with a GP, but not for creating a new relationship with an unknown GP. For example, when we asked Mary (59) why she would decline having a video consultation with a new GP, she explained the following:

> I would like to sit opposite the person and have a look at what kind of person he is. Because I know this about [GP's name]. But I will not be able to say this about a new GP.

Other patients expressed similar opinions, stating that they would prefer to get to know a new GP before having a video consultation with them; however, they were unable to specify why. Similar to the importance of the GP's role in patients' appropriation of video consultations, one possible explanation for the patients' inability to explain this reluctance

could be that the GP is a reliable and supportive element in patients' uptake of video consultations, which is an unfamiliar consultation method for the patients.

In addition, some patients felt that video consultations were less personal due to the absence of small talk. Peter (67) explained:

> But when [I] finally do [go to the doctor], then it's good to go in there once in a while and say hello. And then there's always this… well, actually there isn't [in a video consultation] – this kind of personal thing with "Hi, how's it going?" and things like that.

Earl (66) also expressed concern about the potential lack of personal exchanges and small talk during video consultations, which he explained was one of many reasons to not use video consultations. Clearly, the phatic interaction that occurs between patients and GPs in a physical meeting has important value for patients.

Furthermore, most patients considered video consultations unsuitable for discussing serious matters. However, what characterises "a serious matter" was found to differ between patients. For instance, while Thomas (66) stated that talking about weight problems would be completely unproblematic on video, Helen (58) thought the topic too delicate to discuss on video. Hence, it is impossible to generalise, and each patient has to be considered individually.

Furthermore, most patients were sceptical about using video consultation for a physical examination, and again the issue of what was considered "serious" arose. The only patient who had undergone a physical examination via video consultation was satisfied, as she felt her hand eczema was "something trivial" (Helen, 58).

Other patients had the notion that video consultations should only be used for speaking to the GP. As Alice (57) stated: "[The video consultation] is just a conversation" and "I don't have to do anything".

Similarly, another patient displayed reluctance to assist the GP with physical examinations, stating that video consultations should not be used if the GP needed to "look at, feel or touch something, right?" (Mary, 59). However, one patient, in spite of some initial scepticism, conceded that having a physical examination via video consultation would be acceptable as long as it was not in connection with a serious matter, such as a lump in the breast. Furthermore, one male patient and three female patients expressed that they would not want to show intimate body parts, such as the abdomen, on a video consultation. This reluctance was due to associations with nude pictures, online security concerns, and a feeling of exceeding private boundaries. David (63) explained: "We all have this invisible boundary towards what we believe is, you know, how far we want to go with stuff like that, right?" While this perceived limitation of physical examinations via video consultation has implications for the definition of the doctor–patient relationship, it is a limitation based on the patients' ideas of the video consultation technology and how it should or should not be used.

In conclusion, the domestication process involves not only individual patients, but also their family members and, most importantly, the doctor–patient interaction and relationship. Indeed, a preestablished doctor–patient relationship was found to be crucial for the introduction of video consultations. According to the analysis of the patients' domestication process, there are two types of factors explaining patients' views of video consultations. First, individual factors include both technological aspects, such as the patient's technological competence, and situational aspects, such as the patient's time constraints and considerations. Second, relational factors include the influence of both family members and, most importantly, the doctor–patient relationship in a patient's domestication process. We have schematised these individual and relational factors in Table 2.

Domestication phase	Individual factors	Relational factors
Appropriation	Varying technological competence levels ranging from insecure to confident Choice of media platform Sound (hearing impairment)	Lack of guidance Use of video consultations initiated by GP Influence of family members on patients' use or non-use of video consultations
Objectification	Location: home setting, workplace, car	Presence of family members (positive/negative) Quality of video consultation Doctor–patient confidentiality
Incorporation	Saved transportation time Effectiveness Need for optimisation of time ranging from convenience to actual logistical barriers	Intimacy (privacy) Doctor–patient confidentiality
Conversion	Scepticism about physical examination	Knowing the GP beforehand; maintaining the relationship Difficulty in establishing a new relationship Absence of small talk Unsuitable for discussing serious matters

Table 2. Patients' views on video consultations

Discussion and conclusions

The purpose of this study was to gain a deeper understanding of video consultations from the perspective of domestication theory. We did so by analysing interviews with 13 patients to explore how patients experience and manage the domestication phases of appropriation, objectification, incorporation, and conversion. Based on our analysis, there were feelings of both optimism and scepticism related to video consultations throughout the patients' domestication processes. These results are consistent with existing studies

(Chudner et al., 2019; Gardner et al., 2015; Huang et al., 2016; Leng et al., 2016; Nymberg et al., 2019). However, what our study adds is nuanced explanations of patients' feelings of optimism or scepticism.

As we have shown, the patients' attitudes towards video consultations were highly dependent on their relationship with their GP, and their level of technological literacy also played an important role. To demonstrate this bipartition, we divided our results into individual factors and relational factors (Table 2). As explained previously, when domestication theory is used to investigate mobile and individual technologies, such as video consultations, a focus on the individual user is meaningful. Therefore, in Table 2, we outlined the individual factors influencing the domestication of video consultations. However, it became clear throughout our analysis that several relational factors were also salient in the interviewed patients' experiences of video consultations. First, family members were found to influence the domestication process: As explained in the objectification phase, one of the obstacles patients experienced during video consultations was the presence of family members. The challenge of securing doctor–patient privacy and confidentiality resembles findings from a study on video consultations in general practice (Lüchau et al., 2021) and from studies on video consultations done in the context of psychology, where a therapist needed to know whether a third person (family member or friend) was present during the consultation (Rasmussen et al., 2017; Tarp & Nielsen, 2017).

In addition to the influence of family members, it was clear that the GP played an important role in the patients' domestication of video consultations. This adds complexity to the domestication framework, as patients' domestication of video consultations was shown to be intertwined with doctor–patient interactions and relationships. Throughout the four phases, the patients acted within boundaries set by the GP and with consideration for the GP. For instance, patients began using video consultations on their GP's initiative; they conducted video consultations within the working hours of the medical clinic; and some patients chose their location for their video consultation based on what the GP could see. Furthermore, the perceived limitations of using video consultations were also connected to the doctor–patient relationship. For example, some patients explained that they did not want to conduct a video consultation with a GP they had not previously met physically. In addition, in contrast to the study by Powell et al. (2017) about American patients, but consistent with the British study by Donaghy et al. (2019), our analysis shows that some patients preferred to discuss what they individually perceived as serious matters in physical encounters with their GP and not via video consultation.

Consequently, the domestication process cannot be analysed by focusing solely on the individual patient, or even the individual household, as the theory originally intended. Instead, it needs to take into consideration the ongoing negotiation and adaption taking place between a GP and patient: One part cannot succeed in domesticating video consultations without the other part contributing. Therefore, we propose the expansion of the domestication framework by adding the term *collaborative domestication*, which is

defined as the ongoing mutual influence and interdependency of technology users in a specific interactional context: in this case, the GP and the patient. Thus, the relationship between the user and the world is not relevant only in the appropriation and conversion phases, as domestication theory originally intended; rather, it exists throughout the entire domestication process when it comes to media and technologies used for communication purposes, such as video consultations. The term collaborative domestication was inspired by affordances theory: Bardram and Houben (2017) coined the term collaborative affordances, which describes an artefact, such as a technology, that affords collaborative activity in a specific context. With regard to video consultations specifically, Islind et al. (2019) coined the term two-sided affordances, which is defined as "relational and emerg[ing] through interaction between the actors and their surrounding artifacts and exist relative to the action capabilities of a particular actor" (p. 459). Based on our analysis, we believe the same point can and should be made about the domestication of video consultations, thereby moving the focus from the individual user to two or more users. However, collaborative domestication is still influenced by the individual user and their everyday routines, as we have demonstrated with the technological and situational factors in Table 2. Hence, collaborative domestication should not be understood as a total disregard of individual choices and actions, but rather as a supplement to and expansion of the individual user's domestication of video consultations.

Furthermore, in the context of video consultations, collaborative domestication is not equally divided between the users, because the GP is a professional while the patient is layperson. As seen throughout the phases, the patients adjusted to the GP's demands and boundaries. This is in line with other studies that have pointed out that patients may justify their consultations by presenting themselves as "reasonable" patients, which is also referred to as patients acting "doctorable" (Heritage & Robinson, 2006). While the patients' technological competencies seemed to affect their initial appropriation and use of video consultations, their motivation to do so was not primarily related to their skills, but rather to the doctor–patient relationship. The GP does not necessarily play an equally important role to all patients, therefore patients' experiences likely differ based on their doctor–patient relationship. However, independent from their relationship with the GP, patients' technological literacy and their media habits were found to play a significant role in their domestication of video consultations. With regard to patients' use of video consultations, several communication and media technologies are involved: the platform (either tablet or smartphone); the app Min Læge [My Doctor]; and the video consultation itself. Similarly, patients' experiences with these different media could influence their domestication of video consultations in various ways. Hence, media use and technological literacy are topics that could be explored further.

Finally, this study was conducted in Denmark, which is a highly digitalised country. A national Strategy for Digital Health 2018–2020 has been developed in order to cope with the ongoing pressure being applied to the Danish healthcare system due to an increase in

ageing and chronically ill people. This strategy describes how the development of a sustainable Danish healthcare system needs to use digital communication technologies, and how more patient interactions with health services must take place from the patients' own homes (Sundheds- og Ældreministeriet et al., 2018). Consequently, results are likely to differ in other countries where the healthcare systems are not as digitalised.

A potential limitation to this study is the GP who served as our gatekeeper to the patient interviewees, who was a pioneer of video consultations. Consequently, it is likely that our patient interviewees had a more positive attitude towards video consultations. In this way, our results only relate to the 13 patient interviewees and probably do not represent the average primary care clinic's use of video consultations. Furthermore, the study was conducted early in the implementation of video consultations, thus representing the initial phase of video consultations in a primary care setting in Denmark. To gain more knowledge about the development of patients' use and domestication of video consultations, further follow-up studies should be conducted. Determinants such as age, educational level, and different health conditions could be taken into consideration in future studies to help understand possible nuances in the domestication of video consultations for different groups of patients. Nevertheless, due to courtesy of the patients of this study, it has been possible for us to collect unique and valuable insights into the initial use of this new consultation genre, which is slated to play a significant role in the future of the Danish healthcare system.

In this study, we posed the research question: How do patients account for their experience of video consultations with their GP? Based on the analyses of 13 patient interviews from the perspective of domestication theory, we found that there are two types of factors explaining patients' views on video consultations: individual factors and relational factors. We demonstrated how the GP has significant influence throughout the patients' domestication process, and we thereby propose the term collaborative domestication as an extension to domestication theory, in order to take into account the mutual influence and interdependency of GPs and patients when patients domesticate video consultations. We also found that each patient must be considered on an individual basis with regard to what they perceive as being suitable for a video consultation and how much of themselves they are willing to reveal. We have demonstrated how consideration of the individual patient is connected with the doctor–patient relationship. Therefore, we argue that the concept of collaborative domestication is useful for gaining nuanced insights into patients' attempts to embed video consultations in their daily lives, hence it is essential for developing a deeper understanding of the object of study.

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