


Use of telehealth: Evidence from French teleconsultation for women's healthcare, prior and during COVID-19 pandemic

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Abstract

Prior to the COVID-19 pandemic, French healthcare practitioners seldom used teleconsultations in France. COVID-19 has brought with it a great need for the use of teleconsultation and other interventions using digital technology. The study's objective was to identify how French healthcare practitioners used teleconsultation for obstetrics and gynecology care services before and during COVID-19. Our study used a survey of French healthcare practitioners specializing in obstetrics and gynecology from 1 March 2020, to 31 April 2020. We first described the global picture of the teleconsultation context prior to COVID-19 and then during the first lockdown measures. For both contexts, we set up three aspects: 1- teleconsultation regarding providers' ability; 2- teleconsultation with regards to its technological features; and 3- teleconsultation for which type of healthcare. Second, we mobilized logit models to study the determinant factors of teleconsultation use as well as what drives provider satisfaction with teleconsultation practice. We show the central role of training, and the importance of some main digital technology benefits, namely improving public health, responding to patients' requests, and facilitating healthcare access. We also exhibit the importance of the limitations specifically related to the lack of convenience in digital technology use and the lack of trust in the digital service provided. Our results guide policy makers on suppliers' motivation and needs for teleconsultation adoption. These results highlight the conditions for efficient use of teleconsultation.

Keywords

teleconsultation, obstetrics and gynecology, training, technology features

Introduction

The US Health Resources and Services Administration (HRSA) defines telehealth as electronic information and telecommunication technologies to support and promote long-distance clinical healthcare, patient and professional health-related education, public health, and health administration.¹ As explained by Goldstein et al., telehealth encompasses a variety of technologies and approaches to connect patients to healthcare resources to improve personalization, efficiency, access to care, and secure sharing of health information.²

Teleconsultation is one branch of telehealth. Aside from augmenting the broad spectrum of existing conventional medical services, health professionals also used teleconsultation to overcome physical limitations. It leads to setting up a virtual relationship between patients and physicians. According to Lee and Hitt, teleconsultation plays an important role, especially in well-woman care.³ A study by De Nicola showed that telehealth interventions were associated with improvements in obstetric outcomes, perinatal smoking cessation, breastfeeding, early access to medical

abortion services, and schedule optimization for high-risk obstetrics. However, the authors concluded that further well-designed studies are needed to examine these interventions and additional ones to generate evidence.⁴ Using a review of 71 published articles, van den Heuvel et al. underlined that despite the challenges of privacy, liability, and costs, telehealth is very likely to disperse globally in the next decade, and it has the potential to deliver a revolution in perinatal care. However, they accentuated the need for evidence for health outcomes, patient satisfaction, and the impact on costs

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of the possibilities of telehealth interventions in perinatal care.⁵ In obstetrics and gynecology academic research, Greiner studied US state telehealth programs. He also concluded that they are clinically successful, but economic and cost-effectiveness data are lacking.⁶

Many countries worldwide, especially high-income ones, have successfully introduced telehealth systems, which allow patients to access general healthcare and specialist consultations regardless of the distance separating patients from physicians. In those countries, low-income pregnant patients are less likely to receive recommended prenatal care and are more likely to have severe maternal morbidity and mortality than high-income patients (Peahl et al., for the US context⁷; Milcent and Zbiri, for the French context⁸). Telehealth has also been used in trials in low-income and middle-income countries, particularly in rural communities where access to antenatal care is challenging.⁹ In Poland, telehealth consultations offer more accessible access to consultations in the context of a limited supply of gynecologists and obstetricians. They can also be an alternative to conventional doctor's appointments.¹⁰

While previous studies have examined the impact of healthcare professionals' telehealth practices on patient demand, additional analyses are required to understand the lack of professional uptake, particularly for specific medical specialties such as obstetrics and gynecology. In this paper, we studied the use of teleconsultation in the French context for obstetrics and gynecology. We first described the context before COVID-19 and the change due to COVID-19. During these two periods, we then determined the factors impacting the probability of teleconsultation use and those explaining the probability of provider satisfaction with the practice of teleconsultation.

Literature on new digital technologies adoption

Many recent studies have reported a significant increase in telehealth use during the COVID-19 pandemic. Mann et al. showed a rapid expansion of telehealth use for urgent and elective care in an extensive health system (NYU Langone Health) at the epicenter of the COVID-19 outbreak in the United States.¹¹ Madden et al. analyzed trends in choosing between face-to-face and telehealth prenatal care visits at two affiliated hospitals in New York City during the COVID-19 pandemic. During the study period, telehealth, which accounted for approximately one-third of all visits made, increased rapidly.¹² In a review article, Contreras et al. reported that the number of telehealth visits at many facilities increased dramatically after the new COVID-19 restrictions on face-to-face clinical encounters were implemented.¹³ However, the motivations for healthcare professionals for teleconsultation are not studied.

Cremers et al. assessed the determinants of successful eHealth intervention prior to the implementation of the eHealth program.¹⁴ Various previous studies have shown the

importance of training health care professionals to adopt new digital technologies. Sanders et al. conducted semi-structured qualitative interviews to explore barriers to participation and adoption of telehealth and telecare from the perspective of individuals who withdrew from or declined to participate in a UK trial. One of the main barriers revealed was the technical skill and equipment use requirements, highlighting the need for adequate training.¹⁵ Young et al. reviewed 23 studies to summarize existing research on the acceptance of staff's remote intensive care unit coverage. They reported that training was a potential barrier to acceptance. In another systematic review of 30 articles, Kruse et al. assessed barriers to telehealth adoption worldwide. They found that the main barriers were technology-specific and could be overcome by training.¹⁶ On the other hand, other studies have shown a lack of training for health professionals. A recent national survey of medical schools in France observed that although telehealth education and training was integrated into initial medical training, it remained limited, even among deans and associate deans.¹⁷ In this paper, we study the role of the teleconsultation training in the teleconsultation use.

Several studies also reported the existence of different barriers and facilitators to the adoption of telehealth regarding the advantages and disadvantages of digital technology. Many analyses showed that practitioners are more likely to use telehealth and are satisfied with this practice when they find it useful for the healthcare system, such as promoting public health, healthcare access, or patient request.^{18,19} Regarding disadvantages of the technology, Kruse et al. reported barriers to adopting telehealth worldwide through published work analyses. Among these barriers, they found those related to the lack of conveniences such as old equipment, no equipment, rural setting, or telehealth literacy, and those related to the lack of truthfulness such as legal liability, privacy, confidentiality, or security of data.¹⁶ We here analyze the impact of these factors on the teleconsultation use, mobilizing the quantitative data and allowing us to control the teleconsultation use of training and healthcare professional characteristics.

Finally, some previous studies have shown practitioner preference for using teleconsultations for specific health services.^{5,20} In this paper, we also took specific health services as drivers for teleconsultation use.

Materials and methods

Data collection

Our study used a survey of French healthcare practitioners specializing in the management of all types of obstetrics and gynecology problems. A web-link survey conducted by SurveyMonkey was sent to women's health specialists from three health professional associations between March and April 2020. This survey was available online for all the associations' members (about 2000). We distinguished their practices before COVID-19 and during the first lockdown in France.

Study population

A total of 247 midwives, obstetricians, and gynecologists were surveyed. This article explored their practice of telehealth consultations. The sample consisted of 51.6% midwives, 26.8% obstetricians and 21.6% gynecologists (exclusively). 87.5% of respondents were women. These health professionals were mainly independent practitioners for their main activity (86.6%). However, 32.1% of them practiced in health care centers, including hospitals. More specifically, 19.9% of them practiced primarily or secondarily in a public hospital. Geographically, 20% of them had a mixed practice: their patients came from both rural and urban areas.

Study variables

According to the literature on telehealth in high-income countries (see Literature Section above), three groups of information regarding teleconsultations practice were collected, as follows:

1. Information on teleconsultation with details on the ability of the providers to use teleconsultation. Information on the teleconsultation-specific training was available, as well as the practitioner's ability to use software for teleconsultation and the potential difficulties due to Wi-Fi connection. Here, two variables capture the information related to teleconsultation training: training received (0 = no, 1 = yes) and need for training (0 = no, 1 = yes).
2. Information on teleconsultation with respect to the characteristics of digital technology was collected. This information concerns the main benefits identified through four variables: the variable "improve public health" (0 = no, 1 = yes), the variable "respond to patient demand" (0 = no, 1 = yes), the variable "facilitate access to care" (0 = no, 1 = yes) and the variable "ensure patient follow-up" (0 = no, 1 = yes). This information also concerned the main disadvantages identified through three variables: the "not efficient" variable (0 = no, 1 = yes), the "not convenient" variable (0 = no, 1 = yes) and the "not truthful" variable (0 = no, 1 = yes). The "not efficient" variable summarized the following information: "not efficient" for the patient's consultation or no added value compared to a conventional consultation. The variable "not convenient" summarized the following information: requires too much effort, does not know how to use the necessary software, or is not well equipped (most often with a Wi-Fi connection). The "not truthful" variable summarized the following information: high risk of malpractice, does not feel comfortable using teleconsultation for health care, or unreliable including security of data.

3. The survey provides information on teleconsultation, focusing on the health care motivations for teleconsultation (a description of the specific type of consultations used regarding obstetrics and gynecology follow-up). This involves the following six variables: "gynecology follow-up" (0 = no, 1 = yes), "contraception" (0 = no, 1 = yes), "abortion" (0 = no, 1 = yes), "pregnancy follow-up" (0 = no, 1 = yes), "childbirth class" (0 = no, 1 = yes) and "postpartum follow-up" (0 = no, 1 = yes).

Data analysis

We first present preliminary statistics organized according to the three groups of information described above: 1- teleconsultation concerning provider capacity; 2- teleconsultation regarding digital technology characteristics; 3- healthcare motivation for teleconsultation. We used the available information for each group before COVID-19 and the period during the lockdown measures. In addition, for each period, we present separately the statistics for all respondents and the statistics for the subsample consisting only of respondents using teleconsultation during the specific period.

Then, we use a logit model to identify the drivers impacting the probability of practice of teleconsultation. The outcome measure in this analysis was the teleconsultation use (0 = no, 1 = yes), from which we studied what relationships exist with teleconsultation training (two variables as described above), the main benefits of technology identified (four variables as described above), main disadvantages of technology identified (three variables as described above) and types of healthcare (six variables as described above). We use the sample of all respondents.

Finally, we computed the satisfaction probability with teleconsultation practice using a logit model. The independent variable in this analysis was the satisfaction with teleconsultation use (0 = no at all satisfied to poorly satisfied, 1 = satisfied to very satisfied). The explanatory variables were the variables related to teleconsultation training, main benefits of technology identified, main disadvantages of technology identified, and healthcare motivations, as described above. Here, we considered the subsample composed of only the respondents using teleconsultation.

For all models, we considered two periods, namely 1- prior to COVID-19 and 2- during the first lockdown. Therefore, the respondents' answers were the ones given for the respective period. For each healthcare professional respondent, we used the information obtained about the period before COVID-19 and the information given during the lockdown measure. The results of the models are reported as coefficients with their standard errors. The significance levels are two-sided with a probability threshold of $p < 0.10$. The analyses were performed using Stata software (Stata Corporation, College Station, TX, USA).²¹

Ethics

The study was based on routinely collected consent, as regulated by French law. All participants gave their informed consent to participate in the study. The study questionnaire was submitted to the ethics committee of the French national center for scientific research. This project has been approved with the number TRRECH-519.

Results

We first present the descriptive results based on the three information groups available in the survey data. We then show the determinant factors impacting the probability of teleconsultation practice and those explaining the satisfaction with teleconsultation use.

Teleconsultation as regard to providers' ability

Health professional respondents barely used teleconsultations before COVID-19. Phone consultations were more used than online video consultations, respectively 23.2% versus 11%. In the sample, we observe that these percentages rose sharply. They increased by +52.4 percentage points for phone consultation (75.6%) and by +65.8 percentage points for online consultation (76.8%). Note that a phone consultation may be in addition to the online consultation. About the charge for the patient, the French National Healthcare Insurance System reimbursed online and phone consultations as conventional physical consultations, a fixed fee during the COVID-19.

What about the teleconsultation training? From the survey, we observe an increase in the number of suppliers who

participated in teleconsultation training. They were 12.2% to be trained prior to COVID-19. The percentage increased to 26% during the lockdown on the same sample.

However, based only on healthcare professionals using teleconsultation, whose percentage increased with the lockdown period, we observe that before COVID-19, a higher proportion received teleconsultation training to use teleconsultation (30.7% before COVID-19 vs 27.6% during the lockdown period). Furthermore, with the increase in the number of practitioners using teleconsultation, the expressed need for teleconsultation training on the part of professionals was slightly lower than before COVID-19 (Figure 1).

Moreover, providers encountered difficulties in using teleconsultation. In addition to difficulties related to the Wi-Fi connection (audio or video difficulties), some of them experienced difficulties using the chosen software. 28.9% expressed difficulties in starting teleconsultation during the lockdown period. This percentage was about 7% before COVID-19. Providers also expressed difficulties talking to their patients, but these were marginal (4% during the lockdown period). These difficulties may also explain the need for teleconsultation training expressed by providers.

For teleconsultation software, prior to COVID-19, 35.8% of providers considered themselves uncomfortable with the technology. During the lockdown, they were down to 18.3%. This figure is low compared to the prior environment. However, it is still relatively raised.

Teleconsultation as regard to digital technology features

Figures 2 and 3 illustrate preliminary statistics. First, healthcare professionals cited many more technology benefits

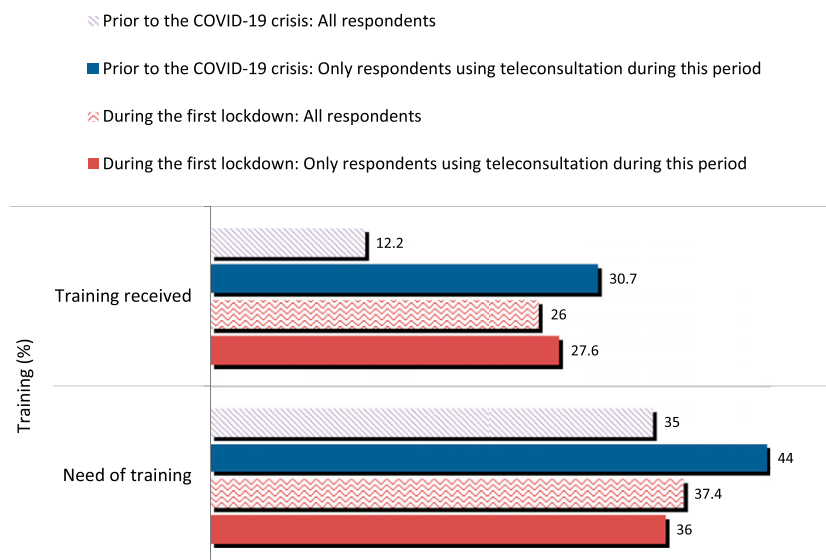


Figure 1. Training for teleconsultation (%).

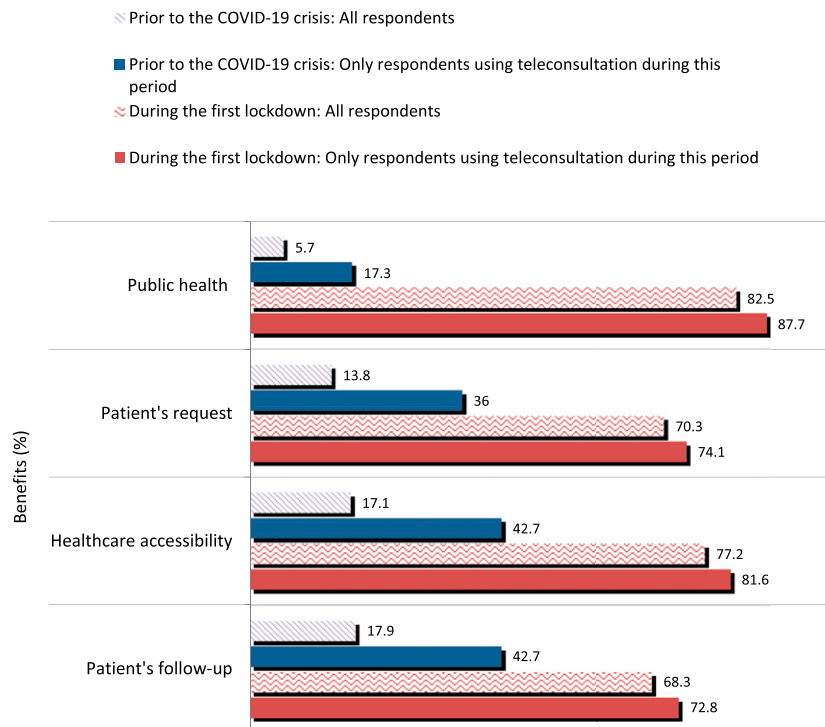


Figure 2. Main benefits of teleconsultation (%).

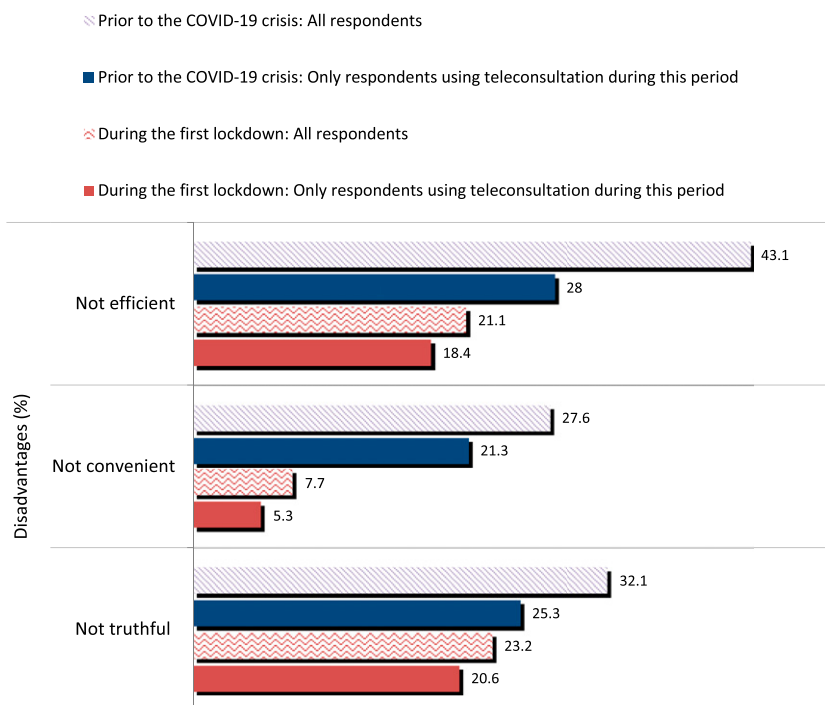


Figure 3. Main disadvantages of teleconsultation (%).

for teleconsultation during COVID-19 than before: regardless of the benefit cited, the percentage of respondents in favor was incredibly lower prior to COVID-19 than the percentage of respondents in favor during the lockdown

period (Figure 2, striped bars compared with fully colored bars).

In the first lockdown, the primary benefit of teleconsultation was a public health issue (over 80%). The

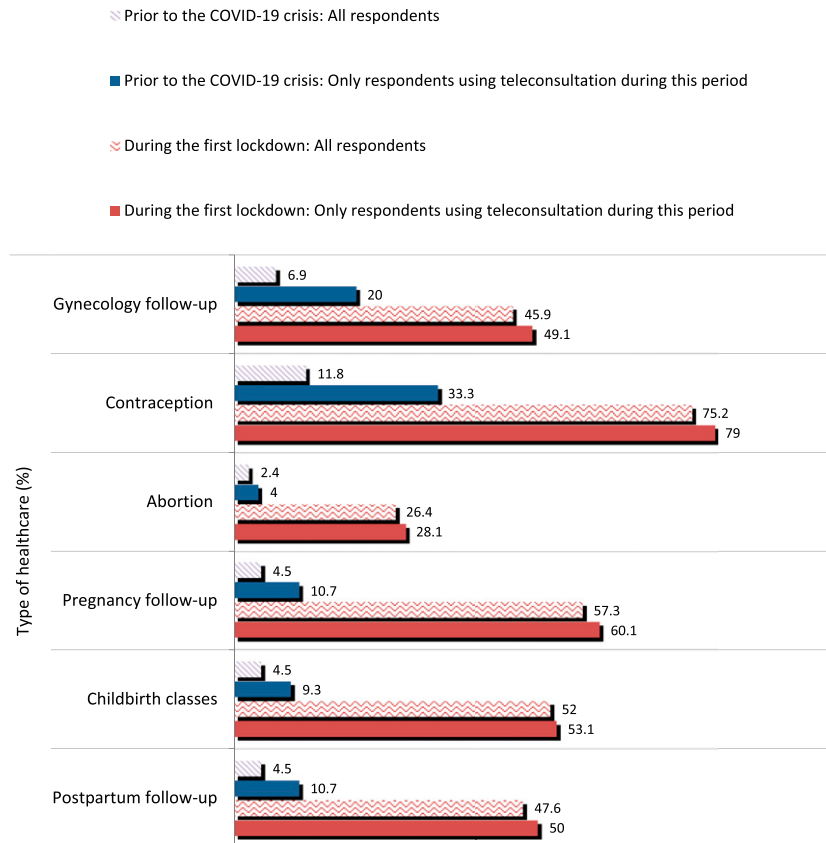


Figure 4. Teleconsultation for which type of healthcare (%).

second benefit was healthcare accessibility (about 80%). It allowed patients to access doctor or midwife consultations, regardless of the distance between patients and providers and travel constraints. In this sample, patient request and follow-up were beneficial for about 70% of providers (Figure 2).

Second, we focus on the technological disadvantages of teleconsultation (Figure 3). Comparing the pre-COVID-19 period to the lockdown period, these technological disadvantages are less identified. However, the “non-truthful” component withstood the shock of lockdown measures. Regarding the survey respondents, when we compare their mindset before COVID-19 (blue bar) and during lockdown (red bar), we see a change of about -5 percentage points, which is incredibly small. Comparing the change in the mindset of the “not effective”, who also revealed a technological disadvantage, we see a slight difference between the period before COVID-19 and during the lockdown period (first wave). This difference is -10 percentage points. The main change is in the convenience of using teleconsultation. During the lockdown period, healthcare professionals who felt that teleconsultation was not convenient decreased from 21.3% to 5.3% (Figure 3).

Among users of teleconsultation (striped bars), before COVID-19, nearly half of health professionals found it not

very efficient. Only one-fifth did so by the lockdown (first wave) (Figure 3). This decrease between the two periods is also the case for the “not efficient” component but much lower for the “not truthful” component.

Overall, the feedback on teleconsultation from providers using teleconsultation was quite mixed. Only 72.8% of providers were satisfied with the practice of teleconsultation. However, before COVID-19, the percentage of healthcare professionals satisfied with teleconsultation was only 38.7%.

Teleconsultation for which healthcare services

Figure 4 presents statistics on the type of teleconsultation for the patients. Regardless of the period, healthcare professionals mainly used teleconsultations for contraception consultation (striped bar).

Before COVID-19, healthcare professionals mainly used teleconsultations for gynecology follow-ups (striped bar). Thus, before COVID-19, teleconsultation by midwives, obstetrics, and gynecology specialists was mainly used for women with gynecological problems and very little for pregnancy follow-ups. During the lockdown period, teleconsultations were also used for pregnancy follow-ups, childbirth classes, and postpartum follow-ups. Overall,

Table 1. Probability of use of teleconsultation (coefficients).

	Prior to the COVID-19 crisis	During the first lockdown	
	Teleconsultation	Teleconsultation	Online consultation
Training			
Training received	1.751*** (0.596)	2.126 (1.352)	-0.086 (0.601)
Need of training	0.174 (0.401)	-0.569 (0.815)	-1.541*** (0.558)
Main benefits			
Public health	1.200 (1.354)	3.131** (1.227)	2.462*** (0.634)
Patient's request	1.585** (0.650)	0.250 (0.996)	0.483 (0.557)
Healthcare access	0.984 (0.642)	2.117** (0.955)	1.893*** (0.567)
Patient's follow-up	0.240 (0.714)	1.259 (1.099)	0.123 (0.567)
Main disadvantages			
Not efficient	-0.691 (0.448)	-1.481 (0.962)	-0.328 (0.737)
Not convenient		-1.146 (1.024)	-4.394*** (1.187)
Not truthful	0.354 (0.493)	1.482 (1.106)	0.200 (0.737)
Type of healthcare			
Gynecology follow-up	2.014 (1.506)	0.813 (1.341)	0.134 (0.642)
Contraception	2.178** (1.053)	0.794 (1.054)	1.073* (0.637)
Abortion	-2.686 (1.891)	-0.753 (1.410)	-0.051 (0.626)
Pregnancy follow-up	0.242 (1.709)	-1.054 (1.153)	0.311 (0.577)
Childbirth classes	-0.605 (1.228)	-1.441 (1.013)	1.450*** (0.548)
Postpartum follow-up	-0.745 (1.518)	0.703 (1.149)	-0.913 (0.621)
Constant	-1.687*** (0.285)	-0.195 (0.826)	-2.325*** (0.737)
Observations	247	247	247
Pseudo R-squared	32.87	55.94	54.49

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

during the first lockdown measures, compared to the period before COVID-19, there was an increase in the use of all types of consultations without exception.

Probability of provider's teleconsultation practice

Table 1 displays the results. First, we comment on the results obtained on professionals' behavior in terms of teleconsultation use before COVID-19 (column 1 of Table 1). Controlling for the other variables, the coefficient for

teleconsultation training is positive and significant, indicating that the likelihood of a healthcare professional using teleconsultation was higher for professionals who received teleconsultation training than for professionals who did not. In addition, responding to a patient request as a reason for teleconsultation increased the likelihood of teleconsultation use. Similarly, for the contraception consultation, the probability of teleconsultation by the professional is increased.

Before COVID-19, the model did not include the "non convenient" variable because it is primarily for online

Table 2. Probability of provider's satisfaction with teleconsultation practice (coefficients).

	Prior to the COVID-19 crisis		During the first lockdown	
	Teleconsultation		Teleconsultation	Online consultation
Training				
Training received	1.133 (1.186)		1.615*** (0.620)	1.504** (0.711)
Need of training	-0.533 (1.126)		-0.475 (0.472)	-1.209** (0.540)
Main benefits				
Public health	-0.208 (1.124)		2.241*** (0.640)	1.710** (0.815)
Patient's request	0.777 (0.970)		-0.084 (0.527)	-0.165 (0.618)
Healthcare access	2.210** (1.010)		0.926* (0.511)	1.138* (0.604)
Patient's follow-up	0.580 (1.239)		0.717 (0.484)	0.232 (0.577)
Main disadvantages				
Not efficient	-1.002 (1.319)		-0.215 (0.611)	0.478 (0.756)
Not convenient			-1.691* (0.942)	
Not truthful	-1.881 (1.651)		-1.715*** (0.576)	-1.849*** (0.637)
Type of healthcare				
Gynecology follow-up	3.707** (1.520)		0.201 (0.487)	0.773 (0.558)
Contraception	0.901 (1.208)		0.468 (0.579)	-0.536 (0.723)
Abortion	-3.214 (2.095)		0.493 (0.535)	-0.079 (0.579)
Pregnancy follow-up	-4.590 (3.906)		-0.265 (0.505)	0.175 (0.555)
Childbirth classes	2.787 (1.959)		0.211 (0.470)	0.309 (0.541)
Postpartum follow-up	1.392 (3.296)		0.662 (0.480)	0.711 (0.545)
Constant	-2.742*** (0.894)		-2.092*** (0.744)	-0.769 (1.065)
Observations	75		228	187
Pseudo R-squared	44.64		36.40	23.24

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

consultation professionals. As noted above, health professionals generally conducted teleconsultations by phone during this period.

We now turn our attention to the lockdown period during which patients limited access to care (column 2 of Table 1). Teleconsultation training did not affect the likelihood of teleconsultation use. Regarding the main benefits of teleconsultation, they are related to solving access to care problems and public health reasons. Indeed, public health and access to care reasons led to an increase in the likelihood of teleconsultation.

In contrast to the period before COVID-19, when teleconsultations were generally conducted by telephone, during COVID-19, teleconsultations were conducted either by telephone or online. We, therefore, focus in column 3 of Table 1 on online consultations only, as this is the type of teleconsultation use that is expected to occur. We show that the need for provider training decreases the likelihood of online consultation use. As observed for teleconsultation, public health motivation and access to care increase the likelihood of online consultation use. Regarding the main disadvantages, the perceived lack of convenience for online consultation led to a

decrease in the likelihood of using online consultation. Similarly, for contraception and childbirth classes, providers' likelihood of using online counseling increased.

Probability of provider's satisfaction with teleconsultation practice

Table 2 presents the results. For health professionals before COVID-19 (column 1 of Table 2), we found that the determinants of satisfaction with teleconsultation addressed the problem of limitations in access to care. Health professionals improved their satisfaction with consultations for gynecological follow-up. During the lockdown period (column 2 of Table 2), training in teleconsultation had a positive impact on satisfaction. In addition, the desire to promote "public health" and to address the "lack of accessibility to care" had a positive impact on health professionals' satisfaction. A positive perception of the convenience of using teleconsultations and the truthfulness of these teleconsultations positively impacted healthcare professionals' satisfaction. For online consultation (column 3 in Table 2), we found that while training received increased satisfaction, the need for training decreased the likelihood.

Similarly, as revealed by the benefits, public health and access to care increase the probability of satisfaction. However, truthfulness decreases the probability of satisfaction. The variable "non convenience" was not included in the model because almost all health professionals who used the online consultation found it convenient. Finally, regardless of the period and type of teleconsultation, we observe that the type of care has no impact on satisfaction.

Discussion

Main findings

Our study shows that the COVID-19 pandemic increased the use of teleconsultations, particularly online consultations, and the percentage of provider satisfaction with teleconsultation practice. This increase was across all types of obstetrics and gynecology health care services. During this pandemic period, the benefits of teleconsultations were reported much more by healthcare professionals, while the disadvantages of teleconsultations were reported much less. In addition, some health services, such as contraception, were more frequently performed via teleconsultation than others. In terms of the determinants of teleconsultation use and provider satisfaction with teleconsultation practice, we highlight the importance of training and some of the key benefits of digital technology, including improving public health, responding to patient demands, and facilitating access to health care, as well as some of the key disadvantages of digital technology, including lack of convenience and lack of truthfulness.

Implications

Because the COVID-19 pandemic affected all countries, our results can be applied to other healthcare systems outside of France, particularly healthcare facilities with characteristics similar to the French context, such as high-income countries. With COVID-19, teleconsultation has been promoted as an effective healthcare practice to allocate medical resources rationally. This COVID-19 pandemic has accentuated the need for more excellent investment in new care practices, other than traditional modes of care, that can provide easy access to care and ensure continuity of care for the entire population.^{22,23}

The results of our study may have several health policy implications. The first implication would be that developing training programs for teleconsultation could incite health providers to the digital practice. Furthermore, health policies should encourage a better understanding of the benefits of teleconsultation, particularly regarding public health and patients' need.²⁴ In addition, a health policy that focuses on the disadvantages of teleconsultation, especially those related to convenience and truthfulness of the digital practice, may also facilitate a wide use of teleconsultation.

High-, middle-, and low-income countries still face challenges in accessing care, regardless of their health systems.^{25–27} These problems of access to care commonly affect specific populations. These are often people with low socioeconomic status, living in environments with few health resources, or lacking adequate health information.^{8,28,29} It would be interesting to study how teleconsultation can increase access to health services, especially for this part of the population that may also be in difficulty using teleconsultation.^{30,31}

Conclusion

In conclusion, the COVID-19 pandemic has increased the use of teleconsultations, including online consultations. This study shows the central role of training and some of the key benefits of digital healthcare, including improving public health, responding to patient demands and facilitating access to care, as well as some of the key disadvantages of digital, including lack of convenience and lack of truthfulness in provider adoption or avoidance of teleconsultation. Therefore, our results inform the policy makers on the conditions for effective use of teleconsultation.

Despite a limited population, this study can provide a first analysis of the practice of teleconsultations before and during the COVID-19 pandemic. French women's health professionals from different health institutions, locations, and individual characteristics responded to the survey. A great deal of information was collected, allowing different characteristics of digital care use to be considered. However, further studies using additional information on technology-based

health care and further analyses of other types of health services are still needed to confirm our findings.

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