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The lived experience of receiving and providing antenatal care during the Covid-19 crisis in Southern Europe: An exploratory qualitative study

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ABSTRACT

Objective: The Covid-19 pandemic led to a reorganization of antenatal care including the cancellation or shift into telemedicine of consultations and restrictions to the presence of an accompanying person. The aim was to explore healthcare professionals' and women's lived experience of such reorganisation consequences on the quality of care and specific challenges they faced, with a particular emphasis on telemedicine and equity.
Methods: Exploratory qualitative study using semi-structured interviews and focus group discussions of women and healthcare providers in New Aquitaine (France) and in the Basque Country (Spain). We collected data from a purposive sampling of women (n = 33) and professionals (n = 19) who had received or provided antenatal care in hospitals and ambulatory facilities between March 2020 and December 2021. Participants' narratives were thematically analysed to identify themes that were subsequently contextualised to the two territories.
Results: Antenatal care professionals and pregnant women experienced strong emotions and suffered from organizational changes that compromised the quality and equity of care. The pandemic and associated restrictions were sources of emotional distress, fear and loneliness, especially among more disadvantaged and isolated women. Among professionals, the lack of adequate means of protection and the multiple changes in caring protocols generated burnout, feeling of abandonment and emotional distress.
Conclusions: The Covid-19 experience should serve to critically consider the unexpected consequences of reorganising healthcare services and the need to meet patients' needs, with a particular consideration for disadvantaged groups. Future scenarios of telemedicine generalisation should consider a combination of in presence and remote consultations ensuring antenatal care quality and equity.

Introduction

The Covid-19 pandemic has largely disrupted women's experience of their perinatal period and significantly impacted their mental and emotional wellbeing. Studies conducted in different countries have shown heightened levels of anxiety, depression, and psychological distress associated with fear and uncertainty about the virus impact on their pregnancy [1–3]. Furthermore, media coverage of growing number of infections and mortality rates [4–7] and the frequent reorganization of health care services to reduce contagion enhanced levels of distress and anxiety [8–10]. Perinatal professionals have also suffered from the sudden transformation of the healthcare environment as they had to ensure the continuity of care while simultaneously minimizing exposure for themselves and for the women under their care. In addition, insufficient protection equipment and staff shortage during the hardest periods of the pandemic contributed to heightened levels of psychological distress and physical exhaustion among front-line providers [11–14].

As elsewhere in Europe, health authorities in the New Aquitaine region in Southern France and in the autonomous community of the Basque Country in Northern Spain were prompted to adapt service

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delivery to reduce risk of viral exposure [15,16]. These two territories, geographically united, but belonging to two countries with notably different healthcare systems and antenatal care organization, adopted similar measures that allow a comparative insight into their effects on service provision. In the field of antenatal care, main changes concerned the cancellation or shift into telemedicine of non-essential consultations including early prenatal interviews, health education and counselling, and antenatal classes [14,17–19]. Institutional hotlines were set up in both territories to respond to emergencies and to provide information about health care reorganization to avoid unwarranted trips to health facilities. Strict restrictions were imposed to the presence of an accompanying person during face-to-face antenatal appointments, ultrasound scans, labor and birth [20–24]. Furthermore, public hospitals in New Aquitaine prioritized routine antenatal care for high-risk pregnancy and transferred low-risk ones to concerted clinics and outpatient facilities. In the Basque Country, visits not requiring scan examination were sometimes rescheduled or canceled without replacement. Hospital face-to-face appointments for essential consultations prevailed in both territories and rather than undergoing substantial changes, they were refocused on strictly clinical aspects of gestation. By contrast, routine visits in outpatient facilities largely shifted to telemedicine and front-line professionals spontaneously used phone calls to maintain the link with the most anxious women, to provide follow-up for non-clinical aspects and to identify complex cases requiring in-presence appointments. In New Aquitaine, less impacted by the pandemic, a number of midwives in ambulatory care resumed face-to-face consultations right after the first lockdown, restrictions to an accompanying person were progressively lifted and, as soon as authorized, cabinets with suitable facilities reinitiated face-to-face group antenatal classes. In the Basque Country, restrictions were maintained until the beginning of 2022, especially those related to the presence of a companion.

Whilst substantial quantitative evidence exists on the effects of the Covid-19 pandemic on frontline professionals' and on pregnant women's mental and psychological wellbeing [7,25,26], qualitative research providing an in-depth understanding of their experiences is much more limited, notably in Southern Europe where only a few studies have been reported [14,19,27,28].

The present study seeks to contribute to filling this gap by qualitatively documenting and comparing the lived experience of women and healthcare professionals who either obtained or provided antenatal care between March 2020 and December 2021 in the regions of New-Aquitaine in France and the Basque Country in Spain. The goal was to explore pregnant women's and providers' lived experience of the pandemic and the specific challenges they faced, with a particular emphasis on telemedicine and equity. Our findings will enrich existing literature on the impact of Covid-19 and the rapid expansion of telehealth on quality of care. Such insights could inform service reorganization in future sanitary crises as well as in contexts of remote consultations and digital health implementation, to ensure appropriate pregnancy care and to avoid ADVERSE effects among socially disadvantaged women.

Material and methods

Design

The study followed a phenomenological approach, a method of inquiry specific to qualitative research allowing a better understanding of social phenomena by capturing the point of view of the concerned actors and by giving primacy to their experiences and interpretations [29]. This approach is particularly well suited to studying the way in which professionals and pregnant women faced Covid-19 challenges and to explore their lived experiences during the most critical periods of the pandemic, aspects that can be hardly captured and addressed through epidemiological or other quantitative research designs.

Sampling and participants recruitment

Study participants were recruited following a purpose sampling to ensure diversity and following two main inclusion criteria: women's socioeconomic position and professionals' engagement in hospital and in primary care settings (Table 1). A third inclusion criteria was to either have provided or received prenatal care between March 2020 and December 2021. An initial theoretical sample was conformed according to these inclusion criteria in order to capture potential heterogeneous experiences and was subsequently enriched as fieldwork progressed. Sample characteristics were adapted to the two regions according to their healthcare systems and the Covid-19 epidemiological situation.

Women's profiles included primiparous and multiparous pregnant women, cared for in hospital and in primary care settings, from the general population and from socially disadvantaged populations, including here migrants and low-income groups. Professionals' profiles varied in terms of professional backgrounds, clinical and managerial responsibilities and levels of care in accordance to particularities of antenatal care provision in the two territories. They were recruited via the research team's networks and included both, obstetricians and midwifes in hospital and in ambulatory facilities. These professionals facilitated a first contact with eligible women accordingly to the aforementioned profiles. Snowball sampling followed to complete study participants for both groups, professionals and women. The final study sample included 52 participants among which 18 women and 8 professionals in the Basque Country and 15 women and 11 professionals (including 3 midwifery students in practical training) in New Aquitaine.

Data collection

In accordance with the study phenomenological approach, we used semi structured interviews and focus groups. With regards to women's narratives, we privileged focus group discussions to facilitate shared views and experience. In addition, some individual interviews were conducted with socially disadvantaged women to better capture singular experiences and equity issues that could remain invisible in a group dynamic. Other women who could not join the focus groups were also individually interviewed. In relation to healthcare providers, interviews were chosen to collect frontline professionals' accounts on the restructuration of antenatal service delivery.

Data collection was conducted between June 2021 and April 2022 by members of the research team with a solid experience in qualitative research. Focus groups and interview guidelines were adapted to the two main profiles of participants. They were deductively developed based on the literature and with empirical openness to new topics and specificities emerging from the two territories. Main topics included participants' experiences of the pandemic, challenges and coping strategies; perceived impacts on their pregnancy (women) or on their caring practice (professionals); views of antenatal care restructuring and effects

Table 1
Profile of participants, territory and data collection techniques.

	Basque Country		**New Aquitaine**		**Total**
Pregnant women	Interview	Focus group	Interview	Focus group	
General population	1	12 (2 FG)	2	5 (1 FG)	**20**
Disadvantaged groups	5		4	4 (1 FG)	**13**
Total	6	12	6	9	**33**
Professionnals	Interview		Interview		
Obstetrician	2				**2**
Midwife	4		9		**13**
Obstetrician + manager	1		1		**2**
Midwife + manager	1		1		**2**
Total	8		11		**19**

on care quality and access; appreciation of telemedicine in general and application in maternal care (Table 2). Data collection was conducted face-to-face, with the exception of two focus groups in New Aquitaine that took place through web conferencing software. Consent to participate in the study and to record exchanges was obtained from participants. All discussions were audio-recorded and literally transcribed.

Data analysis

A thematic analysis [30,31] was performed to explore the main themes as reported by study participants. In a first stage, extensive reading of transcripts was conducted to familiarize with the data, identify emerging themes and assign theoretical and empirical codes. These codes were subsequently grouped to generate thematic categories reflecting participants' views and experiences. In order to increase the study's validity and reliability, preliminary results were discussed and triangulated by the research team as well as with the participants and contextualized to the two territories of the study. Some quotations have been included throughout the result section; a more exhaustive account is provided in Supplementary material. The whole process followed the Standard for Reporting Qualitative Research [32].

Results

Our findings deal with two main topics as reported by study participants: (1) the impact of the pandemic on their emotional wellbeing and psychological health and (2) their lived experience of antenatal care reorganization with a focus on telemedicine access and utilization. The analysis has been carried out separately for women and professionals, leading to some differences in the main categories and subcategories structuring the results presented below. First, we present women's experience of pregnancy in a pandemic context and their personal views on the quality of care they received. Second, we examine professionals' perception of the way they lived the pandemic as frontline providers and how it impacted their caring practice.

Table 2
Topics included in interview and focus group guides.

Pregnant women	Healthcare professionals
Experience of pregnancy in a pandemic context	**Providers' experiences in a pandemic context**
– General experience of pregnancy – Difficulties, main concerns and challenges – Coping strategies	– Service provision at the irruption of the pandemic – Main changes in caring protocols and procedures – Difficulties, main concerns and challenges
Experiences of antenatal care	**Pregnancy management and caring practices**
– Follow-up consultations and monitoring – Emotional support and advice – Birth preparation – Role of the accompanying person – Unmet needs and suggestions for improvement	– Changes in professional practice / adaptations – Assessment of these changes (positive/negative) – Unmet needs and suggestions for improvement
Telemedicine (if not previously addressed)	**Use of telemedicine** (if not previously addressed)
– General appreciation – Experiences during the pandemic: birth preparation, psychological support, follow-up… – Advantages and constraints – Unmet needs and suggestions for improvement	– General appreciation – Assessment in antenatal care – Experiences during the pandemic – Advantages and constraints – Unmet needs and suggestions for improvement

1. Women's experience of pregnancy and maternal care delivery in times of Covid-19

1.1 Pregnancy under fear of infection, emotional distress and loneliness

All women reported to have lived their pregnancy with significant levels of emotional distress and fear for both their own health and that of their unborn child and their partners. They also expressed anxiety at the idea of being infected during their visits to inpatient facilities at a time when hospitals were depicted as places of contagion. These concerns were particularly present among primiparous women and among those having faced previous pregnancy complications or abortions. Some women reported having delayed seeking medical care or canceled appointments that they found unnecessary.

> "*Imagine a pregnant person getting it. That's why it scared me so much. I was very afraid for the pregnancy and for the baby" (Disadvantaged group, BC)*
> *"Every time I went to the hospital I was afraid because at that time we were told that we should not absolutely go there… And, in addition, there was the stress. We didn't know exactly what getting infected meant. I was afraid for myself, for my baby and for my partner" (Disadvantaged group, NA)*

Successive lockdowns and mobility restrictions in New Aquitaine were particularly challenging for more isolated and disadvantaged women. Some of them declared to have felt distress and anguish at the idea of not being able to reach maternity wards in case of emergency. Those in irregular situation were also scared at the idea of being controlled by the police and had cancelled or missed some antenatal appointments at the beginning of the pandemic when these controls were more frequent.

> *"I didn't know what to do because there was no transport. I was scared because I thought, if I had big contractions in the middle of the night, what would I do?" (Disadvantaged group, NA)*
> *"During the lockdown, there were police controls and you couldn't even get around because if you run into someone you needed an identity card. So, I was afraid and I had to cancel certain important appointments…" (Disadvantaged group, NA)*

The interruption of social encounters with friends and the absence of the loved ones were other elements of concern that disturbed women's psychological wellbeing. All participants reported to have experienced loneliness and solitude, notably those more isolated, deprived of their partner's presence or without family networks. This was particularly the case of migrant and exiled women who, in addition, suffered from exacerbated levels of inquietude and anxiety related to the evolution of the pandemic in their countries. Concerning coping strategies, all participants declared to rely on phone exchanges with friends or to join social networks to share information. Some of them had also sought professional advice in the internet.

> *"I'd say that the COVID can kill you, but isolation can kill you too. I missed my friends, I missed going out, having a coffee outside, going out with my partner. I also missed my mother at my side to help me… but she couldn't come. That was really hard!" (General population, NA)*
> *"At that time, I felt depression, because I also missed my mother and the family from my country a little bit. Some had gotten sick from covid and others had died. I thought that it could be my mother's last year and that I was not going to be able to hug her" (Disadvantaged group, BC)*

1.2 Effects of antenatal care reorganization on women's lived experience

As regards to their antenatal care experience, all women declared to have suffered of emotional despair as they were unsure whether their

follow-up visits would be maintained, cancelled, or transferred to telemedicine. Unanticipated changes in protocols and maternity policies, diverging messages about prenatal check-ups and differences in the application of security measures across health facilities exacerbated their distress and anguish. They also regretted that face-to-face consultations, notably in hospitals, were focused on the clinical aspects of gestation at the cost of a more women-centered and holistic approach. They often found that hospital professionals were in a hurry and that their emotional needs were often neglected, feeling unheard and uncared for. Furthermore, some women considered that their questions were irrelevant in a context of emergency and they were reluctant to voice their concerns to avoid "disturbing" professionals.

"The physical well-being of the woman is something else, but it is as if that no longer affected, right? This was left aside (…) During the ultrasound, they only looked at whether the baby was okay. But apart from that, me as a woman had disappeared" (General population, BC)

"The hospital was a complete shambles because they were too caught up in their own anxieties and I didn't feel that the staff were available at all. To be honest, I didn't feel that they were attentive at all (…) I felt like my voice wasn't being heard" (Disadvantaged group, NA)

Uncertainty about how labour and birth would unfold was experienced as particularly stressful. Women expressed particular concern as regards to mask wearing and the presence of an accompanying person at delivery ward. All of them reported a great deal of frustration, anxiety and despair, notably women having suffered a miscarriage or abortion. Likewise, restrictions to the presence of the partner during routine consultations and ultrasound scans were a source of despair and anger. Some of them had lived such restrictions as a missed opportunity to share key moments of their pregnancy with their partner. Others found that such absence could convey messages of women's only responsibility around pregnancy and led to limited parental involvement.

In terms of equity, women who could afford it resorted to private practitioners and clinics to compensate the restrictions imposed in the public sector. They described how this dual follow-up allowed them to catch up non-essential appointments that had been cancelled, to obtain the emotional support they needed, and to ensure their partner's presence during consultations.

"*In my case because I could afford to pay a company that offers classes and so on (childbirth preparation classes). Because in the end I was the first time, I was nervous, and not only for me, but for sharing something with my partner" (General population, BC)*

"I needed to talk to someone other than my mum or my boyfriend and ended up by paying out of my pocket (…) And that's what I really needed, I poured out all my questions and all of a sudden it really calmed me down" (General population, NA)

1.3 Bad experience with telemedicine: Lack of support and new obstacles to reduce uncertainty

All participants had some of their face-to-face consultations replaced by phone calls, a shift that was a source of complaints and frustration. While admitting advantages related to professionals' availability and responsiveness, they considered that the quality of care and the emotional support they needed was compromised. They particularly regretted the lack of human contact at a time when physical presence was highly valued, not only to ensure better clinical advice but also to break isolation and loneliness. As reported by some midwives, women mentioned technical and connectivity problems and the lack of competences to use virtual consultations. In addition, migrant women in New Aquitaine reported communication and language barriers as they found that phone consultations were much more cumbersome that face-to-face appointments.

"When you attend to a person face-to-face, you observe many more things than you can assess in a phone call. You can assess how she is feeling, if she is cared for or not. Besides, also if the women are quite alone… the doctor do not know how she is experiencing that pregnancy" (General population, BC)

"It's better than nothing, that's for sure, but out of that, there's nothing more. It's better to have someone there to talk to. To ask all the questions, to have someone who smiles, who nods… That's all about, human warmth" (General population, NA)

The shift of antenatal classes to teleconsultations was a shared regret. In addition to uncertainty about how labor and birth would develop, some of them declared to have felt underprepared, particularly those without previous pregnancy experience or more isolated. Moreover, all women experienced frustration and regretted the lack of presence classes as a missed opportunity to socialize and share experiences with other women in a context of strong solitude and restricted access to family and friends. Following some professionals' accounts, one participant in the Basque country described how, depending on their place of residence, some women could access face-to-face classes when these progressively resumed, while other women had to continue attending virtual classes or simply renounce to them.

"It would have been more interesting to meet other women with whom we could share our experiences and give each other solutions to relieve the discomforts of pregnancy (…) In addition, I wouldn't has felt alone throughout the pregnancy" (Disadvantaged group, NA)

1.4 "*It wasn't all bad*": positive aspects of being pregnant in times of pandemic

All participants agreed that their pregnancy experience was substantially different from what they had expected and imagined. Nevertheless, those who profited of nearby family members or a supporting partner referred positive aspects of having lived their pregnancy during the Covid-19. Some of them succeeded in isolating themselves and focusing on their pregnancy. They found that the extended time spent at home created privileged moments for introspection and distance from the realities of the outside world. Some others also reported higher control over their pregnancy and over potential external stressors.

It should be also mentioned that all women appreciated and were thankful to antenatal care professionals for having assured the continuity of care and provided adequate emotional support. Midwives were particularly acknowledged as a main source of support and counseling throughout the most difficult periods of the pandemic. Most women emphasized their humanity, availability and dedication. Those in vulnerable situation and with restricted family networks or friends were particularly grateful and admirative of their support.

"Midwives and doctors, were very human despite the context, and it was very reassuring once you were in their care. Pregnant women had to make a lot of efforts to manage to live with a bit of joy and serenity, and with the midwives it was always very comforting and pleasant" (General population, NA)

"The midwife was a very good girl, I liked her a lot. I felt very supported. She talked to me to take away my fear and she told me that everything was going to be fine" (Disadvantaged group, BC)

2. Professionals' caring experience in times of Covid-19

2.1 Experience of emotional distress, physical exhaustion and burnout

Study participants in both territories reported various concerns related to the irruption of the pandemic and impacting their

psychological wellbeing. They described how they had to quickly adapt to a complex environment to ensure the continuity of care and many of them suffered episodes of physical exhaustion, anguish and emotional distress. Some participants expressed their despair and unease at the idea of not being up to the task or not assuring the quality of care they were used to. Midwives particularly regretted increased workloads and frequent schedule changes to replace colleagues that were at higher risk or who had been infected. Some of them considered that the Covid-19 had revealed the fragility of the system and exacerbated preexisting staff shortages in prenatal care. Within this context, one participant regretted the lack of psychological support for antenatal professionals, particularly exposed to situations of distress and burnout.

"Psychologically, it really weakened me. Yeah, I found it very difficult. I felt like I wasn't doing my job thoroughly, not the way I usually do it. Sometimes the peaks of stress and exhaustion were so high that I had to stop. I was seriously shaken up and I just couldn't think straight, it was like a burnout" (Ambulatory midwife, NA)
"I felt that I had a lot of responsibility. And my feeling was: okay, I have to continue working with and for women (…). And with that responsibility and all those limitations that we had; we have tried to maintain it. And the stress peaks have been many" (Ambulatory midwife, BC)

They also complained about insufficient or inadequate access to personal protective equipment and masks, a situation that intensified levels of anguish and fueled a feeling of abandonment by the health authorities. Several midwives in New Aquitaine described how sometimes they had to struggle during their home visits to ensure compliance with distancing measures. Participants in the Basque Country regretted frequent complaints, misunderstanding and incomprehension from pregnant women and their families. They expressed a feeling of unfairness and regretted a lack of empathy and truth towards front-line caregivers who were executing protocols imposed from higher decision levels.

"It wasn't very reassuring. We didn't have an overblouse, the masks didn't fit properly, the equipment changed all the time, the size didn't fit, it was a surprise…" (Ambulatory Midwife, NA)

"At first it was fear and also a little feeling of vulnerability. Because, for example, there was a lot of problems with the material (…) At first, they gave us one FPP2 per week. We had to take good care of it, as if it were gold. And people came without a mask, only we had it" (Obstetrician, BC)

With regards to the risk of contagion, while acknowledging some fear, most participants were particularly stressed with the possibility of infecting others. Those accompanying women in great vulnerability in New Aquitaine felt particularly overwhelmed and frustrated as a result of restricted access to social assistance, as most services and institutions had cancelled appointments or shifted into teleassistance. They reported feelings of despair as they could not ensure a response in accordance with the complex situations confronted by these women. Some participants also declared feelings of isolation and loneliness at the hardest periods of the pandemic, aggravated by the need to respect security protocols and physical distance at the work place. This was particularly expressed by liberal midwives who, at the irruption of the pandemic, were more isolated in their practice.

"As a healthcare worker, I wasn't afraid. As far as I was concerned, we had to ensure the continuity of care, I had to be with the women (…) I was rather afraid of infecting others, especially at the beginning because we didn't really know. It was really an anxiety-provoking situation" (Ambulatory midwife, NA)

"We have had the physical fear of illness. And to all this was added, like anyone else, that we did not see our relatives to avoid infecting them and that we had that uncertainty" (Obstetrician, BC)

"For other midwives in private practice, all alone in their offices, it was more difficult. The feeling of isolation, of abandonment… the fact of being alone all the time, the lack of connection, it was not easy" (Ambulatory midwife, NA)

2.2 Impact of Covid-19 measures on antenatal care reorganization

All participants regretted the constant revision of protocols and caring procedures and considered it a source of uncertainty, confusion and loss of control over their practice. Many of them complained about difficulties in accessing adequate and updated information about the virus and its transmission. Despite updates from health authorities, scientific and medical associations, they declared feeling overwhelmed by multiple and diverse sources of information they had to go through, adding to an already heavy workload. Furthermore, some midwives in New Aquitaine expressed their discomfort and despair when they had to reassure women without necessarily having clear answers to their questions.

"At the beginning that was not very clear. There were things that we had to look up for ourselves, that we heard on the news or found on the internet (…) I spent all my evenings reading new things, protocols, new knowledge on what the situation was" (Hospital midwife, NA)
"The protocol changes, you learned one, and you already had another one (…) All the consultations disappeared overnight, everything was by phone, protocols for Covid began to appear, we had five different protocols, we had to learn every day, now this yes, this no, that has It's been the biggest mess we've ever had" (Ambulatory midwife, BC)

2.3 Quality, access and use of telemedicine

Most participants expressed their concern about the impacts of an extensive use of telemedicine on the quality of care provided. While recognizing that virtual consultations contributed to ensure the continuity of care, they regretted the lack of human contact, far away from women's expectations and from their holistic vision of antenatal care. They also mentioned the impossibility of performing physical examinations, the restriction of consultations to the clinical aspects of pregnancy and the difficulties to create bonding with women.

"Using a computer tool creates a distance that I don't quite appreciate, because we really rely on human contact… The question of telemedicine puts up a barrier. We need to see people. I mean, I take a blood pressure and I see whether a tummy is contracting or not, and that's how I work" (Ambulatory midwife, NA)
"I prefer face-to-face; it has nothing to do with at distance. You interact better with them, also with each other, they interact, they tell each other their things, they create that bond" (Ambulatory midwife, BC)

Other reported challenges included deficiencies in technology and connectivity and the lack of skills to adequately manage teleconsultations. Midwives accompanying socially disadvantaged or migrant women considered that telemedicine had increased inequalities due to these women's limited access to smartphones and internet, as well as the increased language barrier in the absent of non-verbal communication or distant interpreting services. For some participants in the Basque Country the uneven return to in presence appointments increased geographical inequities and impacted the quality of care. All these challenges explain why, as soon as authorized, participants in the two territories quickly resumed face-to-face consultations. Asked about

futures scenarios concerning telemedicine, they expressed caution towards the possibility of generalizing it beyond punctual acts of counseling or occasional requests for information.

> *"With telemedicine, we can very well answer their questions, but it is within this idea of providing information, to reassure patients. But generally, in a midwifery consultation, I don't think it's adapted" (Ambulatory midwife, NA)*

> *"It's true that it was a palliative to keep the link with women. It was fundamental during the pandemic, but afterwards, it's not a way of operating to be perpetuated" (Midwife-manager, NA)*

Despite difficulties, all participants declared to be overall satisfied with the response given to the women they attended. They appealed to their sense of duty and expressed a feeling of fulfillment for having been useful to society in a context of pandemic emergency and great incertitude. These aspects were portrayed as a source of satisfaction and professional motivation.

Discussion

Our study contributes with new empirical evidence on the impact of the Covid-19 pandemic on the psychological and emotional wellbeing of both, pregnant women and antenatal care professionals. Consistent with cumulated evidence [10,25,26,33], we found that pregnant women, in addition to fear of infection, suffered from increased emotional distress and anguish as they feared not receiving the care they needed. Still in accordance with other studies [4,6,7], they also felt ill-informed and ill-prepared for pregnancy and childbirth, largely due to the cancellation or shift into telemedicine of non-essential consultations. While professionals' advice could partly alleviate these feelings, our findings suggest a risk of underestimating psychological and mental conditions requiring specialized care, notably among more isolated and socially disadvantaged women. Regarding providers' experiences, as shown by other authors [12–14,34], we found exacerbated levels of distress and burnout among front-line professionals due to staff shortages, changing security guidelines and procedures, increasing workloads and physical exhaustion. Such conditions, added to difficulties in accessing protection equipment increased their day-to-day difficulties and exacerbated a pre-existing feeling of abandonment by health authorities.

Our findings also provide some insights on how adaptations in antenatal care organisation challenged some aspects associated with a positive experience of pregnancy, a prerequisite to protect the health of the mother and the new-born. In line with other studies [7,11,27,33], we found that focussing on strictly medical aspects of pregnancy, the extensive use of telemedicine, and restrictions to the presence of an accompanying person denied women, especially primiparous women, of the emotional support they needed at critical moments of their pregnancy and impacted the quality of care they received, as well as their opportunities to self-care during pregnancy. Furthermore, care quality is guaranteed when maternity staff rely on well set, uniform and consistent protocols, guidelines and procedures. As highlighted by other authors [34], our study suggests that these conditions might have been jeopardized in a context of uncertainty when front line professionals had to cope with excessive external demands while confronting sharp work reorganization and other challenges which put them under considerable strain.

In terms of equity, our study sheds light on the unequal burden of the Covid-19 pandemic on socially disadvantaged women, adding to existing knowledge on the complex relationship between policy responses to reduce contagion and health inequalities [35,36]. More precisely, from an intersectional lens [37], our findings evidence differential exposure and vulnerability to adverse consequences of the containment measures among women confronting multiple axes of inequality including gender, socio-economic condition, place of residence and immigration status. While women with family support and resources, more knowledgeable about the healthcare system and with financial capacity to afford private consultations managed to navigate difficulties, those socially disadvantaged and more isolated, in spite of engaged professionals' efforts, were disproportionally affected. Likewise, levels of resilience and coping strategies were also profoundly unequal depending on women's material conditions and their capacity to use private solutions in addition to public facilities and professionals. From a gender approach, we can conclude that our study contributes with valuable insights on a specific area of women's health, such as antenatal care, offsetting the traditional invisibilisation of women's health issues, reproduced during the Covid-19 pandemic [38].

In light of these findings and, in the eventuality of future major sanitary crises, it is essential that pregnant women should be equipped with up-to-date information about health care restructuring together with emotional support and advice in routine consultations. In addition, comprehensive equity-oriented responses, including collaboration schemes with social care professionals and institutions, should be developed accordingly to women's material and social living conditions to ensure care continuity and to avoid exacerbating health inequalities. As regards antenatal professionals, accurate information and communication channels must be developed to comfort their practice and to help them understand health services restructuring to avoid jeopardizing care quality and security. Furthermore, professional teams, notably midwifes in ambulatory care, need to be strengthened to prevent physical exhaustion and burnout in a context of already scarce resources.

Regarding telemedicine, the Covid-19 pandemic has provided a natural experiment that allowed scrutinizing the effects of a rapid scale-up of teleconsultations in an emergency context. However, as mentioned by other authors, health authorities need to weigh up the potential benefits of such measures against the pitfalls of a "one-size-fits-all solution" [11]. To this end, teleconsultations should be combined with face-to-face solutions as close as possible to women with limited access to technology and more exposed to episodes of distress and anguish. Such combination of in presence and remote consultations would ensure the continuity of care without compromising antenatal care quality and equity.

Strengths and limitations

This study provides a snapshot of professionals' and pregnant women perspectives during the Covid-19 pandemic. Its strength lies in the qualitative nature of the research, allowing to capture and characterize the nuances and complexities of such experiences. By addressing their specific concerns and views, our study embraces a broader view of women's reproductive health and yields new insights on women's health issues in general, which remain understudied. In addition, the long period covered, between March 2020 and December 2021, provides contrasting and diverse experiences in accordance with the range of measures implemented throughout this period. Moreover, the conduction of individual interviews with singular profiles of women, including socially disadvantaged women, has evidenced some equity issues particularly challenged during the pandemic. Likewise, the inclusion of health managers has allowed to complete front-line providers' views with relevant information on decision-making imperatives shaping services reorganization. Finally, by providing useful insights on a phenomenon with middle-term consequences on the quality of antenatal care and on women's wellbeing, our study findings can inform future pandemic outbreaks and major sanitary crisis.

There are also some limitations related to the study design. First, its qualitative and exploratory approach makes its results context-dependent, following participants' views and experiences in specific settings. Although Covid-19 caused health care reorganizations at a global level, differences in their application varied across countries and regions. Therefore, results transferability, that is to say how much/to what extent findings can be generalized across social settings, could be

an issue. However, as Lincoln and Guba argued, sufficient description of methods and context, an "auditing" approach, provides others with elements to assess possible findings' transferability and reproducibility of the study to ensure external reliability [39]. Thus, our results could serve as a comparison point with similar regions immersed in comparable processes and contexts. Second, participants' narratives, in particular those relating to the first stages of the pandemic, might be subjected to recall bias given the time passed/gone since the first lockdown and the evolution of the pandemic and associated containment measures. Nevertheless, the extensive exchange and discussion during interviews and focus groups enabled the collection of diverse experiences and might have limited this bias. Third, at the request of participants, two focus groups were carried out online. Nevertheless, no substantial differences were found in the development of group discussion and in collected narratives compared to the other focus groups conducted face-to-face.

Conclusions

Antenatal care professionals and pregnant women experienced strong emotions and suffered from organizational changes that compromised the quality and equity of care during the Covid-19 pandemic. Such changes were maintained for a long time, provoking an extensive impact on women's mental health and emotional well-being. The generalisation of teleconsultations and the severe restrictions to partners' presence were sources of emotional stress, uncertainty and loneliness, especially among more disadvantaged and isolated women. The Covid-19 experience should serve to critically consider the unexpected consequences of reorganising health care services in a pandemic context and the need to take decisions that better meet the patients' needs, with a particular consideration for socially vulnerable groups. Future studies need to incorporate an intersectional perspective to better understand the multiple structures of inequality that shape these groups' exposure to health hazards and to tailor policy responses to cope with complexity and to avoid increasing pre-existing inequalities.

Ethical considerations

The study was approved by the Ethics Committee of the University of the Basque Country (M10_2020_264). Participants were informed about the study objectives and of the possibility of withdrawing from it at any time. They were also informed that recorded data, transcriptions and any written support would be anonymized and that they could contact the research team for further information. They all gave their informed consent prior to their inclusion in the study

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CRediT authorship contribution statement

Ana Rivadeneyra-Sicilia: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. **Yolanda González-Rábago:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. **Viviane Ramel:** Conceptualization, Formal analysis, Investigation, Validation, Writing – original draft, Writing – review & editing. **Irene García-Zurita:** Conceptualization, Formal analysis, Investigation, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.srhc.2024.100949.

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