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The COVID19 pandemic has changed women's experiences of pregnancy in the UK

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Corresponding Author:	Sarah Sturrock St George's University of London London, UNITED KINGDOM
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	St George's University of London
Corresponding Author's Secondary Institution:	
First Author:	Sarah Sturrock, MBBS
First Author Secondary Information:	
Order of Authors:	Sarah Sturrock, MBBS
	Kim Turner, MBBS, BA
	Chelone Lee-Wo, MSc
	Vanessa Greening, BSc
	Asma Khalil, MD, MRCOG
	Paul T Heath, FRCPCH
	Kirsty Le Doare, MBBS, PhD
Order of Authors Secondary Information:	
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Abstract:	Introduction During the SARS-CoV-2 pandemic, maternity care has been substantially altered to reduce transmission of the SARS-CoV-2 virus. Many antenatal services are now restricted or delivered online, and visiting has been restricted during labour and in the postnatal period. Methods We conducted an online survey from 1 st August to 31 st December 2020 to investigate the experiences of women who were pregnant or breastfeeding in the UK during the SARS-CoV-2 pandemic. The survey included 55 open and closed questions and required 5 minutes to complete. We publicised the survey using social media. Results We received 96 responses, including 66 currently pregnant women and 22 women who were pregnant during the pandemic. The response rate was 70.1% of survey views. We found mixed experiences of the impact of the pandemic on antenatal and perinatal care, notably with some women feeling visiting restrictions were insufficient and others feeling they were too strict. Twenty-nine women received no information about COVID-19, and 6 women found it very difficult to find information. Thirty-nine women would have liked to have more information about breastfeeding after a pregnancy affected by

	COVID-19, and 37 women wanted more information about antibody persistence and transfer. Discussion Additional support is required for pregnant and lactating women during the current pandemic. Provision of information and support, including via social media, may improve women’s experiences of pregnancy in the current environment.

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Authors: Sarah Sturrock MBBS[1,2], Kim Turner MBBS BA(Hons)[3], Chelone Lee-Wo MSc [1,2], Vanessa Greening BSc[1,2], Asma Khalil MD MRCOG[1,2], Paul T Heath FRCPCH[1,2], Kirsty Le Doare MBBS PhD[1,2]

1. **St. George's Hospital NHS Trust, Blackshaw Road, London, SW17 0RE, UK**
2. **St. George's, University of London, Cranmer Terrace, London, SW170RE, UK**
3. **Keck School of Medicine University of Southern California**

Short running title: Pregnancy in the pandemic

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During the SARS-CoV-2 pandemic, maternity care has been substantially altered to reduce transmission of the SARS-CoV-2 virus. Many antenatal services are now restricted or delivered online, and visiting has been restricted during labour and in the postnatal period.

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Additional support is required for pregnant and lactating women during the current pandemic. Provision of information and support, including via social media, may improve women's experiences of pregnancy in the current environment.

Key words: SARS-CoV-2, coronavirus, pregnancy, antenatal care, patient experience

Significance

Maternity services in the UK have been significantly restructured to prevent transmission of the SARS-CoV-2 virus, including restrictions to in-person antenatal care, and perinatal visiting. It is not fully known how these changes are perceived by pregnant and breastfeeding women.

Reactions to changes in antenatal care are mixed, including whether restrictions were too lenient or too strict. Most women underwent online antenatal care in addition in-person visits. Some received no information about COVID-19, and a significant proportion of women would have liked more information, particularly regarding antibody transfer and benefits of breastfeeding during the pandemic.

Ethical statement: This study was approved by North East - Newcastle & North Tyneside 1 Research Ethics Committee

Corresponding author:

1. **Dr Sarah Sturrock, St George's, University of London**

ssturroc@sgul.ac.uk, +44 7855 478 360

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Introduction

To limit the transmission of COVID-19, substantial changes in the provision of maternity care have been made worldwide, particularly in high income countries. In the first months of the pandemic, guidelines which support maternity health services changed constantly, as models of healthcare during pregnancy were adapted to meet physical distancing requirements.(Khalil, von Dadelszen, Ugwumadu, Draycott, & Magee, 2021) Many antenatal care services were restricted or offered online only in the UK. Many hospitals introduced a visitor restriction policy for labour and birth, and some allowed only a partner to be physically present in the hospital.(Brown, 2020)(Royal College of Obstetricians and Gynaecologists, 2020).

Although deemed necessary for the physical safety of expectant and new mothers and infants, these changes had potential to significantly alter women's emotional journey through antenatal and delivery care. At the time of our study, previous studies had focused on symptoms of stress and anxiety(Almeida, Shrestha, Stojanac, & Miller, 2020)(Stepowicz, Wencka, Bieńkiewicz, Horzelski, & Grzesiak, 2020)(Zainiyah & Susanti, 2020). We aimed to explore what effect these changes had on all women's experiences in a broader, more holistic sense. Therefore, we included questions on how significantly changes to service structure had impacted their birth plans, and how safe they felt. Additionally, the pandemic led to a need for rapid and reliable health information unlike any other within a generation. Therefore, we also aimed to understand where and how expectant or breastfeeding mothers wanted to receive health information in order to best meet this need.

Methods

We undertook to understand the experiences of women who were planning a pregnancy, were currently pregnant or were breastfeeding in the UK during the SARS-CoV-2 pandemic using an online survey designed using the SurveyMonkey® tool, promoted online using social media between 1st August to 31st December 2020. There was no upper limit on participant numbers set, and no minimum sample size as the data would be qualitative and not statistically analysed.

There were 55 open and closed questions within the survey and women were informed they would require approximately 5 minutes to complete. The full questionnaire is available in the supplementary information. Information was provided on data storage and use, Investigator name and the purpose of the study. The data was tested internally before launching via social media to check for internal validity and logic, then disseminated via the periCOVID Facebook page and Twitter. The periCOVID website is designed to provide information on pregnancy and the neonatal period during the pandemic (www.pericovid.com). Social media was used (as opposed to existing volunteer patient lists or hospital-based advertising) in order to maximise the reach of the questionnaire and collect as many diverse experiences as possible from clients of multiple healthcare Trusts. Women who self-identified as pregnant, planning a pregnancy, or breastfeeding at the time were asked to complete the survey directly into the tool by following the link. No participant identifiable information was collected. No data linkage methods were used. A validity check was built into the survey such that the survey responses could not be submitted if certain questions were not answered. Respondents were able to review and change

their answers before they were submitted. Because of the nature of the survey we were unable to check for multiple entries per individual.

Data was analysed according to emerging themes and displayed as number (%). We describe the survey using the CHERRIES checklist.(Eysenbach, 2004). No specific funding was allocated to this study.

Results

Ninety-six women completed the survey, of whom 66 were currently and 22 had recently been pregnant (Table 1). We had 120 views on the Facebook page and 17 retweets. If each click and retweet is considered one individual viewing the questionnaire then our response rate was 70.1%.

When asked if women felt that their birth choices were limited by the pandemic 15 either strongly agreed or agree, whilst 17 disagreed or strongly disagreed, and 16 felt that the pandemic and reorganisation of maternity services had no impact on their choices. Two women were not able to have their partners with them for their first scan. One woman who gave birth five days before the first national lockdown was disappointed not to be able to use the birthing pool in her unit due to staff shortages. One woman who was asked to shield during the pandemic did not feel reassured by staff that she and her baby would be protected from infection during their time in hospital. Reactions to postnatal visiting restrictions were also mixed; one woman felt that there should have been more restrictions as she didn't feel protected and safe. Three women found the uncertainty regarding the rules unsettling and would have liked better guidance from the hospital.

Thirty-nine women responded that they would like to have more information on the benefits of breastfeeding after a pregnancy affected by COVID-19 disease; 37 of women expressed an interest in having more information on how long the antibodies that pregnant women produce when they are infected persist, if these antibodies cross the placenta to the baby and how long they persist in both the mother and the baby after delivery. Regarding vaccination against COVID-19, 46% (24) women felt that pregnant women should not be included in vaccine trials (Figure 1).

Discussion

Our survey found that the pandemic was a time of uncertainty change, although some women felt able to continue their intended birth plans and choices regardless. Our results also highlighted a significant information need, with many women desiring more information on the implications of COVID-19 for their infants. This study provides a broader view of the impact of service reorganisation on women's experience of antenatal and delivery care, and may help to explain the higher rates of anxiety and depression seen in pregnant women during the pandemic(Almeida et al., 2020).

Although our study collected data from women with diverse experiences of pregnancy and birth during the pandemic, a clear limitation of this study is that our participants were self-selecting from social media. Therefore, we have not surveyed any women who do not use or access social media, which is likely to have limited our sample to certain demographic and socioeconomic

areas. Additionally, as we chose an online survey rather than an in-person interview, we were unable to explore in depth the issues that were highlighted. However, the changes to maternity services described in the study are consistent with those experienced by a significant number of women in the UK, and so these results can be cautiously used to anticipate the needs of UK pregnant women when faced with a similar public health crisis.

Special support is required for pregnant women yet there are key information gaps that pregnant and breastfeeding women would like to access to improve their experiences of pregnancy in the pandemic. Social media sites linked directly to maternity services are vital to engage women, as these emerged as primary sources of support and information.

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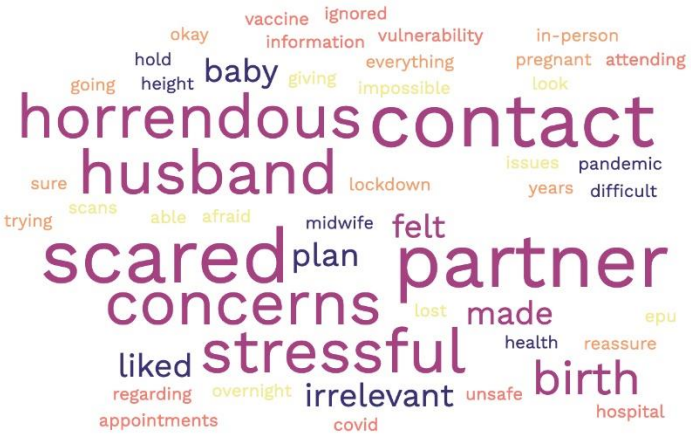
Table 1 - Summary of antenatal care experiences

Type of care		Number of women (%)	Comments
Antenatal care visits	N=96		
	In person	28 (29%)	
	Online and in person	66 (69%)	
	Online only	2 (2%)	
Routine blood pressure and urine monitoring	N=66		
	In clinic	52 (83%)	
	At home	8 (12%)	One woman did not know what to do if results abnormal
Hospital contact	N=62		
	Midwife number if concerned	59 (90%)	
Complications of pregnancy	N=66		
	None	36 (56%)	
	High blood pressure	6%	
	Gestational diabetes	6%	
	SARS-COV-2	5 (%)	
	Stillbirth	1	
	Ectopic pregnancy	1	
	Admission antenatally	8	
SARS-COV-2 Testing			
	Yes	25	
	No	37	
Testing reason			
	Close contact	18% (4)	
	Symptoms of COVID19	45% (10)	Most experienced mild symptoms and remained at home whilst one had moderate symptoms and was admitted to hospital.
	Routine testing of all women	36% (8)	
Delivery care			

	Virtual tour of the delivery suite	14 (22%)	
	In person tour of the delivery suite	38 (61%)	
	Partner, friend of family attendance in labour	40 (62%)	
Postnatal care	N= 28		
	No visitors allowed	7 (11%)	
	Visitor hours restricted	21 (33%)	
	Only partners allowed	10 (16%)	
Information about COVID19	N=47		
	Easy to understand	15 (62%)	
	very difficult to find more information,	6 (4%)	
	neither easy or difficult to find information.	26 (44%)	
	None received	50% (29)	
Source of information accessed	RCOG	61% (35)	
	Tommy's	54% (31)	
	PHE	42% (24)	
	Midwife	29% (17)	
	Government briefings	21% (12)	
Information on			
	Reducing the risk of SARS-CoV-2 infection to themselves during pregnancy	62% (37)	Of those who had received information the majority found it straightforward to understand and act on.
	Vertical transmission	87% (58)	
	Reducing the risk of transmission during labour and delivery	81% (45)	
	Reducing the risk of infection once their baby had been born	90% (50)	

	Reducing the risk of infection whilst breastfeeding	92% (50)	

Figure 1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baby
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contact
husband
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sure
lockdown
years
difficult
trying
scans
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midwife
felt
scared
plan
partner
concerns
lost
made
epu
health
reassure
liked
stressful
birth
regarding
overnight
irrelevant
unsafe
hospital
appointments
covid

Figure Captions

Figure 1. Word cloud of common themes in comments from pregnant and lactating women