



ORIGINAL ARTICLE

Obstetric violence during the SARS-CoV-2 pandemic in Spain: A descriptive study



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SARS-CoV-2;
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Gender-based
violence;
Obstetric violence

Abstract

Aim: The aim of this study was to describe women's perceptions of obstetric violence, medicalisation, and interventionism at childbirth in Spain during the SARS-CoV-2 pandemic.

Method: A cross-sectional design was used. For data collection, an online questionnaire with closed questions was designed and distributed via social media. Women who gave birth between March 2020 and April 2021 in Spain were recruited.

Results: The sample consisted of 6060 questionnaires. Sixty-two percent of respondents thought that the measures taken were arbitrary and ineffective in curbing the pandemic. For the following variables, statistically significant differences were found between groups related to maternal SARS-CoV-2 diagnosis: feeling rejected for suspected positive SARS-CoV-2 status ($p < 0.001$), being encouraged to breastfeed ($p = 0.048$), offering bottles without consent ($p < 0.001$), not being allowed to be accompanied ($p < 0.001$), and separating the healthy baby from the mother at birth ($p = 0.009$). Women who tested positive were also less satisfied with their care and felt less empowered. Thirty-three point five percent of women ($n = 2030$) report having suffered obstetric violence. Of these, 67.8% ($n = 1376$) believe that such obstetric violence is not justified by the pandemic.

Discussion: Understanding these experiences during a pandemic provides an opportunity to develop specific protection policies for women in the event of future health crises.

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PALABRAS CLAVE

SARS-CoV-2;
COVID-19;
Embarazo;
Parto;
Violencia de género;
Violencia obstétrica

Violencia obstétrica durante la pandemia del SARS-CoV-2 en España: estudio descriptivo

Resumen

Objetivo: Describir la percepción que tienen las mujeres sobre la violencia obstétrica, la medicalización y el intervencionismo en los partos en España durante la pandemia del SARS-CoV-2.

Método: Se utilizó un diseño transversal. Para la recogida de datos se diseñó un cuestionario online con preguntas cerradas que fue distribuido por redes sociales. La muestra estuvo compuesta por mujeres que parieron en España desde marzo de 2020 a abril de 2021.

Resultados: La muestra estuvo compuesta por 6.060 cuestionarios. El 62% piensa que las medidas que se tomaron son arbitrarias e ineficaces para frenar la pandemia. Las variables sensación de rechazo por sospecha de COVID-19 positiva ($p < 0,001$), apoyo en la lactancia materna ($p = 0,048$), ofrecer biberones sin consentimiento ($p < 0,001$), impedir el estar acompañada ($p < 0,001$) y separar al bebé sano al nacer ($p = 0,009$) mostraron diferencias estadísticamente significativas en función del diagnóstico COVID-19 materno. Además, estas mujeres estuvieron menos satisfechas con su atención y se sintieron menos empoderadas. El 33,5% de las mujeres ($n = 2.030$) afirman haber sufrido violencia obstétrica. De estas, el 67,8% ($n = 1.376$) piensa que esta violencia obstétrica no está justificada por el contexto pandémico.

Discusión: La comprensión de estas vivencias en momentos pandémicos ofrece una oportunidad para poder desarrollar políticas de protección específicas para las mujeres ante futuros eventos de crisis sanitaria.

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What is known?

Obstetric violence is a structural, systematic and institutional problem that has been measured before in Spain. The SARS-CoV-2 pandemic is thought to have exacerbated the problem of obstetric violence.

What does it contribute?

SARS-CoV-2 positive women faced rejection, discrimination, and reduced empowerment during childbirth. High rates of perceived obstetric violence, even during the pandemic, challenge assumptions linking SARS-CoV-2 to increased violence, highlighting deep-rooted issues in the Spanish healthcare system.

Introduction

There is no globally agreed definition of obstetric violence (OV), although some countries have passed legislation on the concept and provided a definition.¹ In Catalonia (Spain), OV has recently been introduced into legislation as a type of violence against women and defined as preventing or hindering access to truthful information necessary for autonomous and informed decision-making. It can affect different areas of physical and mental health, including sexual and reproductive health, and can prevent or hinder women from making decisions about their sexual practices and prefer-

ences, and about their reproduction and the circumstances in which it is carried out.² A recent literature review highlights the typologies of OV identified in the scientific literature, which include: verbal violence, physical violence, psychological violence, sexual violence, social discrimination, neglect of care, and inappropriate use of procedures and technologies.³ Prior studies highlight that more than 38% of women in Spain felt that they had experienced OV during childbirth and more than 54% felt insecure, vulnerable, guilty, incapable, or indifferent during childbirth, showing that Spain has a serious public health problem concerning OV.^{4,5} As structural, systemic and institutional violence, it can be recognised in all health-related systems,⁶ including home-based obstetric care.⁷ It is necessary to highlight that obstetric violence is a type of gender-based violence that is so normalised, invisibilised and denied at the professional and social level that it is still not considered violence against women.⁸

The Spanish health system is characterised by the fact that it is a public health system, which means that everyone who needs it can receive health care as a constitutional right. However, the Spanish healthcare management model allows for the coexistence of public and private healthcare centres. On the other hand, in 2003, the Law on Cohesion and Quality of the National Health System allowed for the political decentralisation of healthcare in the 17 Autonomous Communities into which the country is divided.⁹ It is worth noting that a national survey in Spain reported that 47.3% of respondents would choose private insurance for their own or a relative's birth.¹⁰ Other studies have highlighted that the Spanish private health system tends to medicalise and intervene more during childbirth, and women perceive greater OV in private care.¹¹

SARS-CoV-2 reached some health systems already affected by austerity.¹² SARS-CoV-2 involved major changes and constant adaptations of care protocols during the different waves.¹³ A number of sources have reported on the possibility of increased OV during the SARS-CoV-2 pandemic.^{14,15} 25.48% of births in Spain in 2020 were by caesarean section.¹⁶ These data seem to show a high level of unnecessary interventionism about which governments and professionals have previously expressed their concern.¹⁷ There have also been daily reports, particularly during the early months of the pandemic, of pregnant women being offered planned induction of labour for no apparent medical reason, as well as childbirth by caesarean section, being denied companionship during labour, being separated from their newborn, and having restrictions on breastfeeding.^{14,18} Sadler et al. have expressed growing concern that some of the restrictions and interventions that have been implemented in childbirth because of the SARS-CoV-2 outbreak are not necessary, are not based on scientific evidence, are disrespectful of human dignity, and are not proportionate to the need to curb the spread of the virus.¹⁴ Therefore, the aim of this study was to describe women's perceptions of OV, medicalisation, and interventionism in childbirth in Spain during the SARS-CoV-2 pandemic.

Methods

Design

A cross-sectional descriptive design was used. The data were obtained through a national online survey.

Population and sample

The sample was selected non-randomly using a non-probability sampling technique. Participants were eligible for the survey if they had given birth in Spain from March 2020 to April 2021. For the analysis of the results, questionnaires that did not include a valid date of childbirth were excluded. The sample size calculation indicated that a sample of 3001 individuals is sufficient to estimate with a confidence level of 95% and a precision of 2%, a population percentage expected to be around 50%. A loss to follow-up rate of 20% has been estimated.

Online survey

For this study an online survey was developed and hosted on the secure Google Forms® platform. A previously existing ad hoc survey measuring OV in Spain was used.^{4,11} The research team decided to add sociodemographic variables, obstetric variables, and variables related to SARS-CoV-2 to this survey. Some of its variables were also modified to include new potential pandemic-related interventions, such as giving birth with a mask on or the lack of antenatal classes. Other variables were added, such as whether or not the woman thought that OV was justified by the pandemic. A variable on live births and perinatal death was also proposed. The survey was distributed in Spanish with a total of

68 questions. Of these, 9 questions were related to sociodemographic and obstetric aspects. 3 were related to diagnosis by COVID-19. 8 questions were related to women's feelings. Finally, 31 questions collected data about the treatment received and the woman's satisfaction with obstetric care (Supplementary material).

The survey was pilot-tested for clarity and comprehensibility. For this purpose, 10 women with similar socio-demographic characteristics and researchers on the subject were selected. All of them were asked to rate the clarity and relevance of the questions as well as the time required to complete them. Minimal syntactical modifications were made. Consideration was given to the potential difficulty women might have in responding to the survey, so it was kept as short as possible. In the pilot test, it was observed that approximately 10 min was a sufficient amount of time to answer the survey.

Women were recruited via social media (Facebook®, Twitter®, and Instagram®). Activist networks such as the "Observatorio de Violencia Obstétrica en España" and "El Parto es Nuestro" also participated in the dissemination of the study, which was distributed via a generic anonymous link. The questionnaire configuration was limited to 1 response per user.

Ethical considerations

This study was designed in accordance with the Declaration of Helsinki and the Spanish Organic Law 3/2018 of 5 December on Personal Data Protection and Guarantee of Digital Rights. This study received ethical approval from the Ethics Committee Universitat Jaume I (CD/06/2021). The first question of the online survey asked women to confirm to participate in the study. This question was accompanied by information on data protection and research data management which clarified: the data controller, the purpose of data processing that data will not be passed on to third parties and the rights of the participants. In addition, no personal data that could identify the participants is collected.

Data analysis

A descriptive analysis of all variables was performed using frequencies and percentages for categorical variables, and means and standard deviations for continuous variables. The Kolmogorov-Smirnov test for normality showed a non-normal distribution of the sample (0.536, p-value < 0.001). Therefore, a bivariate analysis was carried out using the chi-squared test through contingency tables for categorical variables, or Kruskal-Wallis test for continuous variables, as appropriate, for the SARS-CoV-2 diagnostic variables. Data were processed using Statistical Package for the Social Sciences (IBM® SPSS) v. 25, IBM, Armonk, NK, United States of America. Graphs were created using Excel spreadsheets. The statistical significance threshold was set at $p < 0.05$.

Results

A total of 6270 responses were obtained. Two hundred and ten (3.34%) questionnaires were eliminated for not including the childbirth date correctly or for stating a childbirth date outside of the pandemic. The final sample consisted of 6060 questionnaires.

Description of socio-demographic and obstetric variables

The mean age of the women was 34.41 years (SD=4.23 years). 73% (n=4423) of them were employed workers and 78.2% (n=4736) had a university education. 97.1% (n=5887) as white or Caucasian and, 64.1% (n=3882) had a vaginal birth. 3.3% (n=200) were diagnosed with SARS-CoV-2 during pregnancy and 1% (n=63) during childbirth. 3% (n=8) of newborns were diagnosed with SARS-CoV-2 at birth (Table 1).

Satisfaction with the health care received

In the present study 66.8% (n=4047) of women believe that health institutions did not support women's rights during the pandemic. 57.3% (n=3474) of our sample believe that the national Ministry of Health and the regional health service are not doing enough to ensure that protocols for the management of pregnancy and childbirth during the pandemic are evidence-based. In addition, 62% (n=3757) of respondents believe that the measures being taken are arbitrary, unjustified, and ineffective in curbing the pandemic. 10.6% (n=644) of women felt pressured to undergo tests or screenings they would rather not take, and 38.3% (n=2324) of them received conflicting indications and/or recommendations from different professionals. Mean satisfaction with the care received was 6.97 points (SD=2.61; 95% CI: 6.91–7.04) in primary care and 7.64 points (SD=2.42; 95% CI: 7.58–7.70) in hospitals. 33.5% of women (n=2030) report having experienced OV during pregnancy, childbirth, or the postpartum period or being unable to deny it. Of these, 67.8% (n=1376) believe that this OV is not justified by the pandemic. Testing positive for SARS-CoV-2 during pregnancy or childbirth does not yield statistically significant differences with respect to any of these variables with the exception of satisfaction with skilled care (No SARS-CoV-2: mean=7.66±2.41 points, 95% CI:7.60–7.72; SARS-CoV-2 during pregnancy: mean=7.46±2.57, 95% CI: 7.10–7.81; SARS-CoV-2 during labour: mean=6.73±2.67, 95% CI: 6.06–7.40; Kruskal–Wallis: 8.907, df=2, p=0.012) (Table 2).

SARS-CoV-2 and interventions during pregnancy, childbirth and postpartum

During pregnancy, 8.3% (n=500) of the sample reported feeling rejected or discriminated against for pandemic situation;

Table 1 Socio-demographic and obstetric-neonatal variables (n=6060).

	n (%)
Autonomous Community	
Andalusia	789 (13.0)
Aragon	287 (4.7)
Canary Islands	202 (3.3)
Cantabria	59 (1)
Castile and Leon	356 (5.9)
Castile-La Mancha	212 (3.5)
Catalonia	855 (14.1)
Valencian Community	892 (14.7)
Extremadura	146 (2.4)
Galicia	496 (8.2)
Balearic Islands	135 (2.2)
La Rioja	37 (0.6)
Madrid	949 (15.7)
Navarra	85 (1.4)
Basque Country	292 (4.8)
Principality of Asturias	107 (1.8)
Region of Murcia	161 (2.7)
Occupation	
Homemaker	279 (4.6)
Student	55 (0.9)
Unemployed	579 (9.5)
Employed worker	4423 (73.0)
Self-employed	586 (9.7)
Other	138 (2.3)
Level of education	
Basic education	60 (1.0)
Secondary education	1264 (20.9)
University education	4736 (78.1)
Race or ethnicity (n = 6009)	
Caucasian	5887 (98.0)
Romani	8 (0.1)
Black	11 (0.2)
Other	103 (1.7)
Type of childbirth	
Caesarean section	1309 (21.60)
Scheduled C-section	395 (30.18)
Urgent C-section	914 (69.82)
Instrumental birth	869 (14.30)
Vaginal birth	3882 (64.10)
Type of healthcare	
Private	584 (9.6)
Public	3572 (59.0)
Mixed	1904 (31.4)
Maternal SARS-CoV-2	
No	5797 (95.7)
Yes, during pregnancy	200 (3.3)
Yes, during childbirth	63 (1.0)
Neonatal SARS-CoV-2 (n = 263)	
No	255 (97.0)
Yes	8 (3.0)

Table 2 Satisfaction with the care received by the sample by SARS-CoV-2 positive diagnosis.

	SARS-CoV-2 positive								χ^2	df ^a	p-Value
	Total		No		During pregnancy		During childbirth				
	n	%	n	%	n	%	n	%			
Health institutions supported women's rights during the pandemic											
No	4047	66.8	3868	66.7	131	65.5	48	76.2	4.375	4	0.358
I do not know	782	12.9	751	13.0	28	14.0	3	4.8			
Yes	1231	20.3	1178	20.3	41	20.5	12	19.0			
Use of evidence-based protocols prepared by the Ministry of Health and the regional health service											
No	3474	57.3	3323	57.3	110	55.0	41	65.1	5.035	4	0.284
I do not know	1178	19.4	1130	19.5	35	17.5	13	20.6			
Yes	1408	23.2	1344	23.2	55	27.5	9	14.3			
The measures taken are arbitrary, unjustified, and ineffective in curbing the pandemic											
Yes	3757	62.0	3596	62.0	117	58.5	44	69.8	8.056	4	0.090
No	1808	29.8	1736	29.9	57	28.5	15	23.8			
I do not know	495	8.2	465	8.0	26	13.0	4	6.3			
I was pressured to undergo tests or screenings that I preferred not to undergo											
No	5335	88.0	5113	88.2	168	84.0	54	85.7	5.937	4	0.204
I do not know	81	1.3	77	1.3	2	1.0	2	3.2			
Yes	644	10.6	607	10.5	30	15.0	7	11.1			
I received contradictory indications or recommendations											
No	3618	59.7	3483	60.1	99	49.5	36	57.1	10.464	4	0.106
I do not know	109	1.8	102	1.8	6	3.0	1	1.6			
Yes	2324	38.3	2203	38.0	95	47.5	26	41.3			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Kruskal-Wallis	p-Value	
Satisfaction with primary care	6.97	2.60	6.98	2.60	6.70	2.78	6.75	2.53	2.444	2	0.295
Satisfaction with specialised care	7.64	2.42	7.66	2.41	7.46	2.57	6.73	2.67	8.907	2	0.012

^a Degrees of freedom SD = standard deviation.

56.0% (n = 3394) had insufficient face-to-face consultations with their midwife or gynaecologist; 85.2% (n = 5165) could not go accompanied to ultrasounds or consultations, and 44.3% (n = 2683) reported a lack of online antenatal education classes. 42.3% (n = 2561) of the women were neither informed of the procedures they were undergoing nor explicitly asked for informed consent, or this was done only occasionally. 10.5% (n = 635) said they were blamed for complications that arose during pregnancy or childbirth; 24.4% (n = 1480) received ironic or disparaging remarks, and 25.5% (n = 1544) were addressed using infantilising nicknames or diminutives. A total of 49.2% (n = 2982) of the women stated that it was impossible for them to ask questions and express fears or concerns. The following variables displayed statistically significant differences depending on the maternal SARS-CoV-2 diagnosis: feeling rejected for suspected positive SARS-CoV-2 status (p < 0.001), lack of online antenatal classes (p = 0.007), information about the birth plan (p = 0.041), provision of the birth plan (p = 0.057), being accompanied during admission (p = 0.007), and being encouraged to breastfeed (p = 0.048) (Table 3 and Fig. 1).

50% (n = 3028) of the women received no information about the birth plan or were not aware of what it was. As a result, only 32.4% (n = 1875) handed in their birth plan. Of these, 47.5% (n = 890) reported that their birth plan was not

respected. Support during maternity admission was allowed in 89.7% (n = 5191) of the cases, with 68.3% (n = 3951) of the women receiving support during the postpartum period and 32.5% (n = 1819) reporting that they were not encouraged to breastfeed. 23.2% (n = 1345) of the sample believed that unnecessary and/or harmful procedures were performed on her or her baby and 6.5% (n = 374) were unable to identify them. Of all the variables listed in Table 4, only offering bottles without consent (p < 0.001), preventing being accompanied (p < 0.001), separating the healthy baby from the mother at birth (p = 0.009), and having vaginal examinations performed by different individuals (p = 0.021) yielded statistically significant differences when compared to having a positive SARS-CoV-2 diagnosis (Fig. 2).

Feelings related to the health care received

The health care received during pregnancy caused feelings of lack of support (64.4%, n = 3902), insecurity (55.9%, n = 3388), anger (41.5%, n = 2516), and anxiety (26.9%, n = 1791). Overall, only 36.2% (n = 2193) of the women felt empowered by the health care they received. Women with a positive SARS-CoV-2 diagnosis during pregnancy vs during childbirth felt empowered (40%, n = 80 vs 17.5%,

Table 3 Variables related to treatment and care received during pregnancy, childbirth and postpartum by maternal SARS-CoV-2 positive diagnosis.

	SARS-CoV-2 positive diagnosis								χ^2	df ^b	p-Value
	Total		No		During pregnancy		During childbirth				
	n	%	n	%	n	%	n	%			
Felt rejected or discriminated against due to suspected positive COVID-19 status											
No	5560	91.7	5408	93.3	127	63.5	25	39.7	454.618	2	<0.001
Yes	500	8.3	389	6.7	73	36.5	38	60.3			
Had insufficient face-to-face consultations with midwife or gynaecologist											
No	2666	44.0	2544	43.9	95	47.5	27	42.9	1.059	2	0.589
Yes	3394	56.0	3253	56.1	105	52.5	36	57.1			
Was accompanied to ultrasound scans or consultations											
Yes	895	14.8	853	14.7	30	15.0	12	19.0	0.938	2	0.626
No	5165	85.2	4944	85.3	170	85.0	51	81.0			
Lack of online antenatal classes											
Yes	2683	44.3	2583	44.6	68	34.0	32	50.8	9.831	2	0.007
No	3377	55.7	3214	55.4	123	66.0	31	49.2			
Received information about the procedures and was asked for informed consent in an explicit manner											
Occasionally	1053	17.4	1015	17.5	31	15.5	7	11.1	3.450	4	0.486
No	1508	24.9	1435	24.8	57	28.5	16	25.4			
Yes	3499	57.7	3347	57.7	112	56.0	40	63.5			
Was blamed for complications											
No	5313	87.7	5090	87.8	174	87.0	49	77.8	7.118	4	0.130
I do not know	112	1.8	107	1.8	4	2.0	1	1.6			
Yes	635	10.5	600	10.4	22	11.0	13	20.6			
Received ironic or disparaging remarks											
No	4505	74.3	4319	74.5	145	72.5	41	65.1	3.462	4	0.484
I do not know	75	1.2	72	1.2	2	1.0	1	1.6			
Yes	1480	24.4	1406	24.3	53	26.5	21	33.3			
Was addressed with infantilising nicknames or diminutives											
No	4042	66.7	3861	66.6	142	71.0	39	61.9	7.974	4	0.093
I do not know	474	7.8	453	7.8	11	5.5	10	15.9			
Yes	1544	25.5	1483	25.6	47	23.5	14	22.2			
Had difficulty in asking questions or expressing fears or concerns											
No	2942	48.5	2821	48.7	97	48.5	24	38.1	6.396	4	0.171
I do not know	136	2.2	129	2.2	7	3.5	–	–			
Yes	2982	49.2	2847	49.1	96	48.0	39	61.9			
Received information about the birth plan and had her questions answered											
No	2865	49.5	2737	49.5	96	50.3	32	50.8	9.995	4	0.041
NR/DK ^a	163	2.8	148	2.7	11	5.8	4	6.3			
Yes	2759	47.7	2648	47.9	84	44.0	27	42.9			
Handed in the birth plan											
No	3912	67.6	3726	67.3	141	73.8	48	76.2	5.746	2	0.057
Yes	1875	32.4	1810	32.7	50	26.2	15	23.8			
Was your birth plan respected? (n = 1875)											
No	890	47.5	862	47.6	21	42.0	7	46.7	0.621	2	0.733
Yes	985	52.5	948	52.4	29	58.0	8	53.3			
24-h access to neonates											
No	439	11.0	413	10.8	15	11.3	11	23.4	8.093	4	0.088
I do not know	3022	75.4	2889	75.5	101	75.9	32	68.1			
Yes	546	13.6	525	13.7	17	12.8	4	8.5			
Was allowed to be accompanied during admission											
No	567	9.8	528	9.5	25	13.1	14	22.2	13.996	4	0.007
I do not know	29	0.5	28	0.5	1	0.5	–	–			
Yes	5191	89.7	4977	90.0	165	86.4	49	77.8			

Table 3 (Continued)

	SARS-CoV-2 positive diagnosis								χ^2	df ^b	p-Value
	Total		No		During pregnancy		During childbirth				
	n	%	n	%	n	%	n	%			
Received support during postpartum											
No	1590	27.5	1520	27.5	45	23.6	25	39.7	7.131	4	0.129
I do not know	246	4.3	238	4.3	7	3.7	1	1.6			
Yes	3951	68.3	3775	68.2	139	72.8	37	58.7			
Was encouraged to breastfeed											
No	1819	32.5	1733	32.4	57	30.6	29	46.8	6.093	2	0.048
Yes	3783	67.5	3621	67.6	129	69.4	33	53.2			

^a NR/DK: I do not know what a birth plan is.

^b Degrees of freedom.

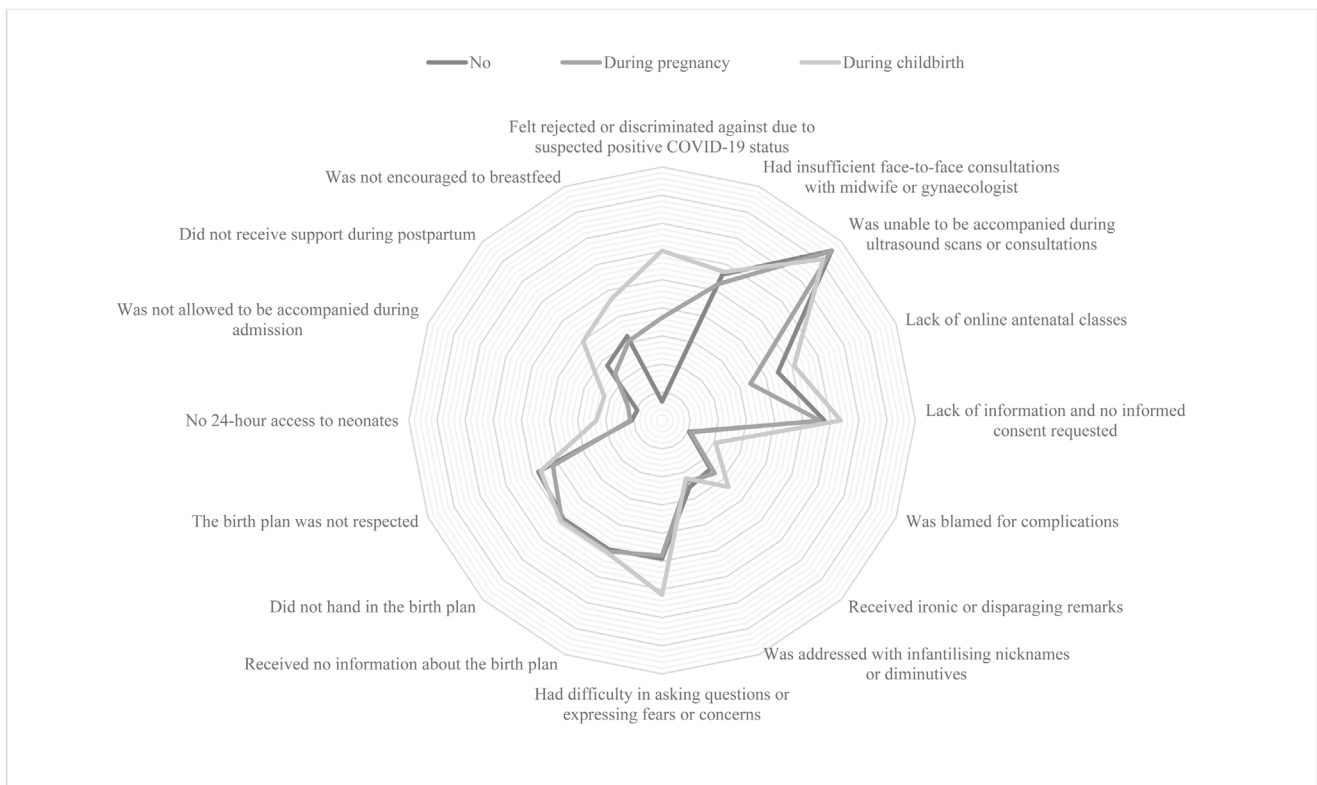


Figure 1 Treatment and care received during pregnancy, childbirth, and postpartum and SARS-CoV-2 positive diagnosis.

n = 11); angry and indignant (13.5%, n = 27 vs 28.6%, n = 18); indifferent (13%, n = 26 vs 11.1%, n = 7); vulnerable, guilty, or incapable (24.0%, n = 48 vs 25.4%, n = 16), respectively ($\chi^2 = 30.216$, df = 8, $p < 0.001$) (Table 4 and Fig. 3).

Miscarriage or perinatal death during the SARS-CoV-2 pandemic in Spain

A total of 273 (4.5%) pregnancies ended in miscarriage or perinatal death. Of these, 64.8% (n = 177) were not allowed to be accompanied at all times by a person of their choice, 20.4% (n = 43) were not allowed to say goodbye to their baby,

and 31.6% (n = 67) were not offered the opportunity to keep a memento of their baby. 46.2% (n = 126) were made to feel that their pain was being exaggerated or that their baby was of little value and 59.7% (n = 163) did not feel psychologically supported, with no statistically significant differences by maternal SARS-CoV-2 diagnosis.

Discussion

This study provides data on the care women received during childbirth in the first waves of the SARS-CoV-2 pandemic in Spain and the feelings they had about it. The

Table 4 Interventions during childbirth and feelings about maternal care and SARS-CoV-2 positive diagnosis.

	SARS-CoV-2 positive diagnosis								χ^2	df ^a	p-Value
	Total		No		During pregnancy		During childbirth				
	n	%	n	%	n	%	n	%			
Unnecessary and/or harmful procedures (n = 6060)											
No	4068	70.3	3887	70.3	139	72.8	42	66.7	1.076	4	0.898
I do not know	374	6.5	357	6.5	12	6.3	5	7.9			
Yes	1345	23.2	1289	23.3	40	20.9	16	25.4			
Kristeller manoeuvre (n = 1719^b)											
Yes	506	29.5	488	19.7	15	28.8	3	14.3	2.307	2	0.306
No	1212	70.5	1157	70.3	37	71.2	18	85.7			
Unjustified Caesarean section (n = 511^c)											
Yes	118	23.1	109	22.2	7	43.8	2	40.0	4.848	2	0.089
No	393	79.6	381	77.8	9	56.3	3	60.0			
My baby was bottle-fed without my consent (n = 1719)											
Yes	201	11.7	190	11.5	3	5.8	8	38.1	15.980	2	<0.001
No	1518	88.3	1456	88.5	49	94.2	13	61.9			
Episiotomy (n = 1208^d)											
Yes	505	41.8	482	41.7	13	36.1	10	62.5	3.302	2	0.192
No	703	58.2	674	58.3	23	63.9	6	37.5			
Lack of information (n = 1719^b)											
Yes	688	40.0	659	40.0	21	40.4	8	38.1	0.035	2	0.982
No	1031	60.0	987	60.0	31	59.6	13	61.9			
Restricted eating and drinking during childbirth (n = 1719^b)											
Yes	591	34.4	567	34.4	15	28.8	9	42.9	1.378	2	0.502
No	1128	65.6	1079	65.6	37	71.2	12	57.1			
No company allowed (n = 1719^b)											
Yes	296	17.2	275	16.7	10	19.2	11	52.4	18.662	2	<0.001
No	1423	82.8	1371	83.3	42	80.8	10	47.6			
I was not allowed to move freely (n = 1719^b)											
Yes	623	36.8	613	37.2	12	23.1	7	33.3	4.458	2	0.108
No	1087	63.2	1033	62.8	40	76.9	14	66.7			
Unjustified induced labour (n = 1208^d)											
Yes	186	15.4	180	15.6	4	11.1	2	12.5	0.638	2	0.727
No	1022	84.6	976	84.4	32	88.9	14	87.5			
Hamilton manoeuvre (n = 1719^b)											
Yes	317	18.4	305	18.5	7	13.5	5	23.8	1.268	2	0.530
No	1402	81.6	1341	81.5	45	86.5	16	76.2			

Table 4 (Continued)

	SARS-CoV-2 positive diagnosis								χ^2	df ^a	p-Value
	Total		No		During pregnancy		During childbirth				
	n	%	n	%	n	%	n	%			
I gave birth with a mask on (n = 1719^b)											
Yes	916	53.3	877	53.3	31	59.6	8	38.1	2.784	2	0.249
No	803	46.7	769	46.7	21	40.4	13	61.9			
Early umbilical cord clamping (n = 1719^b)											
Yes	413	24.0	394	23.9	16	30.8	3	14.3	2.394	2	0.302
No	1306	76.0	1252	76.1	36	69.2	18	85.7			
I had my pubic hair shaved (n = 1719^b)											
Yes	55	3.2	51	3.1	3	5.8	1	4.8	1.329	2	0.515
No	1664	96.8	1595	96.9	49	94.2	20	95.2			
I had my amniotic sac ruptured to speed up childbirth (n = 1719^b)											
Yes	574	33.4	548	33.3	20	38.5	6	28.6	0.828	2	0.661
No	1145	66.6	1098	66.7	32	61.5	15	71.4			
I was separated from my healthy baby at birth (n = 1719^b)											
Yes	435	25.3	421	25.6	6	11.5	8	38.1	7.096	2	0.029
No	1284	74.4	1225	74.4	46	88.5	13	61.9			
I had closely followed vaginal examinations performed by different individuals (n = 1719^b)											
Yes	590	34.3	576	35.0	10	19.2	4	19.0	7.575	2	0.021
No	1129	65.7	1070	65.0	42	80.8	17	81.0			

Table 4 (Continued)

	SARS-CoV-2 positive diagnosis								χ^2	df ^a	p-Value
	Total		No		During pregnancy		During childbirth				
	n	%	n	%	n	%	n	%			
Use of synthetic oxytocin (n = 1719^b)											
Yes	675	39.3	650	39.5	17	32.7	8	37.1	0.989	2	0.610
No	1044	60.7	996	60.5	35	67.3	13	61.9			
Use of vacuum cup or forceps (n = 1208^d)											
Yes	346	28.6	331	28.6	11	30.6	4	25.0	0.168	2	0.919
No	862	71.4	825	71.4	25	69.4	12	75.0			
Other interventions that I consider unnecessary (n = 1719^b)											
Yes	261	15.2	253	15.4	5	9.3	3	14.3	1.310	2	0.519
No	1458	84.8	1393	84.6	47	90.4	18	85.7			
During pregnancy or childbirth: anxiety											
No	4269	70.4	4086	70.5	139	69.5	44	69.8	0.101	2	0.951
Yes	1791	29.6	1711	29.5	61	30.5	19	30.2			
During pregnancy or childbirth: insecurity											
No	2672	44.1	2551	44.0	98	49.0	23	36.5	3.442	2	0.179
Yes	3388	55.9	3246	56.0	102	51.0	40	63.5			
During pregnancy or childbirth: anger											
No	3544	58.5	3392	58.5	117	58.5	35	55.6	0.225	2	0.894
Yes	2516	41.5	2405	41.5	83	41.5	28	44.4			
During pregnancy or childbirth: lack of support											
No	2158	35.6	2073	35.8	69	34.5	16	25.4	3.030	2	0.220
Yes	3902	64.4	3724	64.2	131	65.5	47	74.6			
During pregnancy or childbirth: indifference											
No	5235	86.4	5003	86.3	172	86.0	60	95.2	4.257	2	0.119
Yes	825	13.6	794	13.7	28	14.0	3	4.8			

Table 4 (Continued)

	SARS-CoV-2 positive diagnosis								χ^2	df ^a	p-Value
	Total		No		During pregnancy		During childbirth				
	n	%	n	%	n	%	n	%			
Generally speaking, the attention received made me feel:											
Empowered	2193	36.2	2102	36.3	80	40.0	11	17.5	30.216	8	<0.001
Angry and indignant	667	11.0	622	10.7	27	13.5	18	28.6			
Indifferent	768	12.7	735	12.7	26	13.0	7	11.1			
Vulnerable, guilty, and incapable	1570	25.9	1506	26.0	48	24.0	16	25.4			
Other	862	14.2	832	14.4	19	9.5	11	17.5			

^a Degrees of freedom.

^b Sample of women who responded ‘‘yes’’ plus ‘‘do not know’’ to unnecessary and/or harmful procedures.

^c Sample of women who responded that they had had a caesarean section as a type of childbirth (n = 1309) and who perceived caesarean section as an unnecessary procedure (n = 511, 39.04%).

^d Sample of women who reported having had a vaginal or instrumental childbirth (n = 4751) and who perceived episiotomy as an unnecessary procedure (n = 1208, 25.43%).

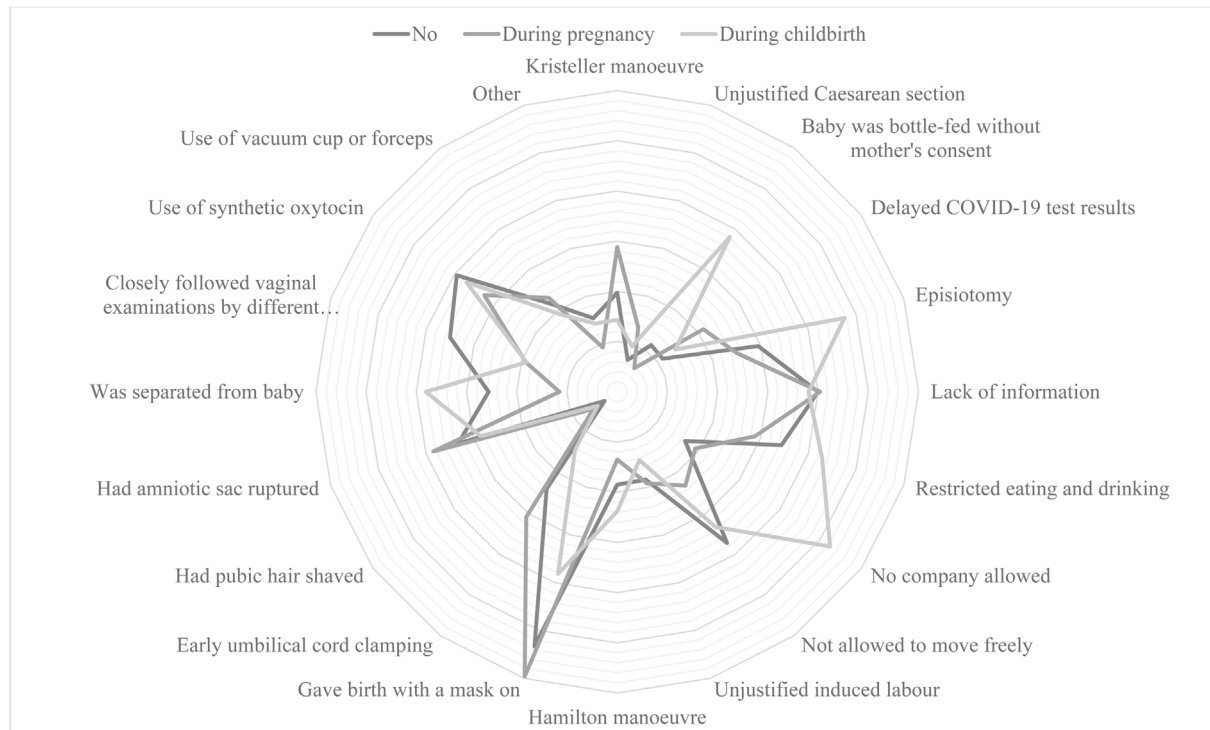


Figure 2 Interventions during labour and SARS-CoV-2 positive diagnosis.

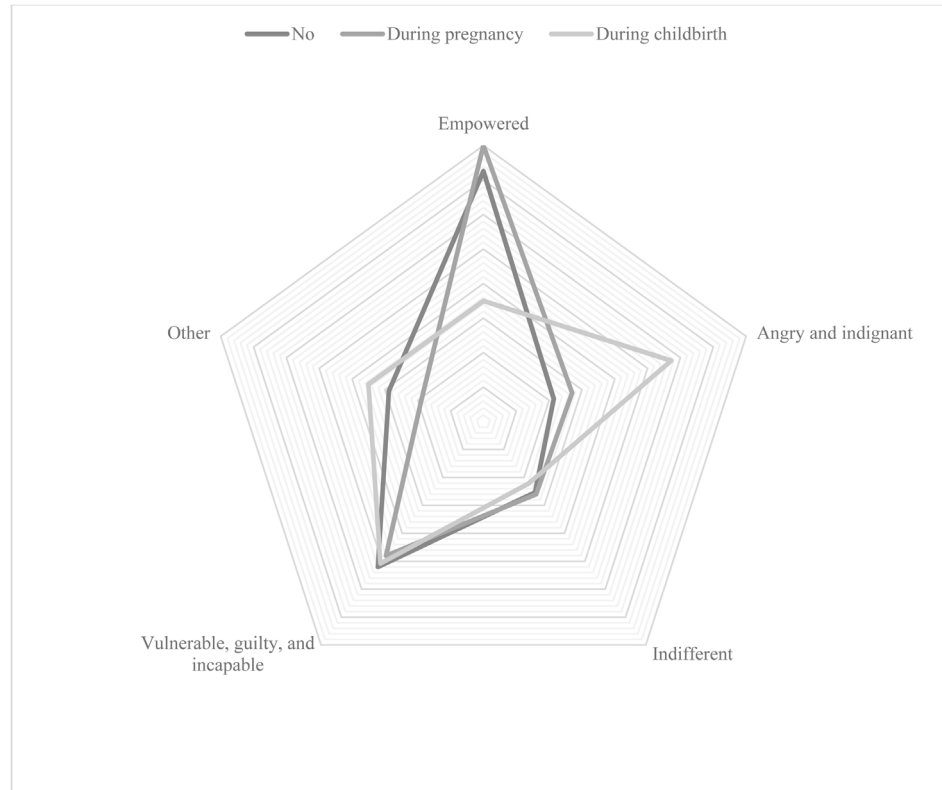


Figure 3 Feelings linked to health care and SARS-CoV-2 positive diagnosis.

women revealed that many of the measures adopted by the Spain government to control the pandemic during pregnancy and childbirth seemed arbitrary and ineffective. Women who tested positive for SARS-CoV-2 during childbirth felt rejected or discriminated against and were less encouraged to breastfeed. Being SARS-CoV-2 positive during childbirth also increased the likelihood that babies would be separated from their mothers, babies would be given bottles of formula, and women would be alone during labour. Women who tested positive for SARS-CoV-2 during childbirth felt less empowered and angrier and more indignant than the rest of the sample. In contrast, early umbilical cord clamping, closely followed vaginal examinations, and the use of vacuum cup or forceps occurred less frequently among SARS-CoV-2 positive women at the time of childbirth. One third of the sample reported OV.

The results of this study seem to be in line with the changes that have occurred in the adaptation of health services to the SARS-CoV-2 pandemic worldwide, especially with the changes occurring in Europe.¹⁹ European countries changed in the reassignment of maternity centres and in the rules of use, for example, restricting access to the companion. Other changes that occurred were the sudden change in care (by phone or online), which in Spain had more variability where some hospitals went to telephone consultations and other clinics continued with face-to-face care.¹⁹ All of these changes have raised concerns about women's rights. In this study more than two thirds of women felt that institutions did not support their rights and that governments issued non-evidence-based protocols and arbitrary measures. A study of obstetric professionals in the Netherlands concurred with this view.²⁰ Future studies should explore this interesting question further in Spain. The truth is that the great challenge posed by the pandemic to health systems meant that their response may have been at times marked by very palpable discrepancies both within the same organisation and internationally.^{21,22} In this context, discrepancies are understood as a lack of consensus on how two or more health professionals should act on the same problem. These discrepancies and constantly changing protocols for health care may have resulted in many women receiving conflicting recommendations. No previously published studies have been found to compare these results, although the results seem to represent the experience of women. This finding may constitute an important line of future research.

In the present study, women who were SARS-CoV-2 positive during childbirth felt more rejection and discrimination in health care as well as less empowered, in line with the results of other studies.²³ It is important to note that women in this study reported receiving more ironic or disparaging comments; having more difficulty, fear and uneasiness to ask questions; and being blamed more for obstetric complications if they were SARS-CoV-2 positive during childbirth. The studies published on Spain to date do not consider these variables. The literature suggests that experiencing one or more episodes of discrimination in health care may be associated with higher levels of post-traumatic stress.^{23,24} Future studies could verify this relationship in women who have given birth during the pandemic.

In many European countries, online antenatal sessions and online clinical follow-ups seemed to be more adaptable¹⁹ than in Spain. As other studies indicate, the

lack of online sessions may also be linked to feelings of desolation, anxiety, anger, and insecurity.^{25,26} In terms of interventions, it is well known that providing support at this stage of a woman's reproductive life is crucial.²⁷ We strongly agree with other authors that providing support has become even more important in this time of uncertainty and fear caused by SARS-CoV-2,²⁶ with most of the women in the sample being denied support and twice as many women in Spain being deprived of it if the SARS-CoV-2 test result at birth was positive, according to the data in this study. Although some restraint may have been positive for mother and baby.²⁸

Although breastfeeding is widely supported by the scientific literature in women with SARS-CoV-2,^{21,29} one third of the women in this study and almost half of the women who tested positive for SARS-CoV-2 at childbirth reported that they were not encouraged to breastfeed. In addition, three times as many babies of SARS-CoV-2 positive women were given bottles without the mother's consent and were separated from their mothers at birth, practices that are not advised by scientific evidence, which compels policy makers to do some serious thinking.^{21,30} Interestingly, interventions that require very close contact with the woman, such as closely followed vaginal examinations, occurred less frequently in SARS-CoV-2 positive women. This may be linked to healthcare providers' own fear of becoming infected,^{31,32} although further studies are needed to confirm this.

Finally, the figures for OV as perceived by women throughout the world have been reflected in the pre-pandemic literature. In Spain, 38% of women identified themselves as victims of prior obstetric violence.⁴ Similar findings for maternal perception of OV were obtained in the present study. Most women feel that this violence is not justified by the pandemic context. These results directly contradict the assumptions that SARS-CoV-2 is a risk factor for the increase in OV,¹⁴ since it seems that OV is deeply rooted in the Spanish health system, constituting a major public health problem that needs to be addressed, according to the perception of its female users.⁴

This study highlights the arbitrariness and ineffectiveness of government measures on delivery care during the SARS-CoV-2 pandemic, pointing to the need for evaluation and adjustment for a more effective approach. SARS-CoV-2 positive women experienced discrimination and rejection, highlighting the importance of policies that ensure equitable and compassionate treatment. The adaptation of health services raised concerns about women's rights. In addition, the gap in online antenatal education, promotion of breastfeeding and personalised care are crucial areas to address. The persistence of OV underlines the need for concrete measures. Despite methodological limitations, these findings provide an essential basis for improving crisis childbirth care, ensuring policies focused on women's needs and rights.

It is important to clarify that some methodological aspects of the study may limit the internal and external validity of these results. In particular, this is a cross-sectional study based on the opinion and perception of the participants, which means that information biases may be present. An information bias may have existed because people can respond freely. In addition, sampling was non-randomised and, in 2020, 341,315 births took place in Spain according to data from the National Institute of Statistics,¹⁶ so the sample may not be representative of the study pop-

ulation. Furthermore, there was a possibility of selection bias, as the questionnaire was distributed to groups that may be more sensitive to the subject matter of the study. On the other hand, data collection can also be considered a limitation, as it was done with a self-administered online questionnaire. This type of sampling as well as data collection may have shown a lack of racial diversity among the results, and therefore could not be analysed. It is important to note that although the incidence of SARS-CoV-2 diagnosis was not an objective of the present study, it is possible that there is a sample selection bias in considering SARS-CoV-2 positive women and neonates regardless of their medical history. For this reason, it has not been possible to analyse SARS-CoV-2 positive or negative diagnosis during pregnancy vs. during birth (in 4 arms). Another noteworthy consideration is that asking women about obstetric interventions refers to obtaining informed consent and how they felt about the interventions performed, not the appropriateness of the obstetric intervention. Despite these limitations, we believe that the results of this study are relevant for patients, professionals, managers, researchers, and policy makers, as they offer insights on the quality of childbirth care in a situation of crisis caused by an infectious disease, a situation that could happen again. In addition, hypotheses are derived from this study that will need analytical studies to confirm them. These studies may link women's post-traumatic stress to childbirth interventions received during a pandemic or health providers' fears caused by caring for women during childbirth to their potential consequences on the change of care. Finally, we believe that the differences in treatment and procedures identified between women with and without SARS-CoV-2 can help to improve care protocols and policies related to the protection of women.

As general conclusions of this study, the SARS-CoV-2 pandemic forced major changes in the healthcare system worldwide. Pregnant women and childbirth were not exempt from the impact of these changes. Thus, the results of this study suggest that one in three women perceived OV in their obstetric care. Furthermore, women perceived that many of the obstetric measures taken in Spain to control were arbitrary and unfair. In addition, women who tested positive for SARS-CoV-2 during childbirth felt rejected or discriminated against and were less encouraged to breastfeed. Testing positive for SARS-CoV-2 during childbirth also increased the likelihood of babies being separated from their mothers, babies being given bottles of formula, and women being left alone during the birth process. Women who tested positive for SARS-CoV-2 during childbirth felt less empowered and angrier and more indignant than the rest of the sample. In contrast, early umbilical cord clamping, closely followed vaginal examinations, and the use of vacuum cup forceps occurred less frequently when the mother tested positive for SARS-CoV-2 at the time of childbirth. One third of the sample reported experiencing OV. Understanding these experiences of pregnancy, childbirth, and postpartum care during a pandemic provides an opportunity to develop specific policies for the protection of women in future health crises.

Ethical considerations

This study received ethical approval from the Universitat Jaume I (CD/06/2021). The first question of the online survey asked women to confirm their consent to participate in the study.

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Declaration of competing interest

The authors declare no conflict of interest.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.enfcl.2025.102151>.

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