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BIRTH ISSUES IN PERINATAL CARE WILEY

Birth during the Covid-19 pandemic: What childbearing people in the United States needed to achieve a positive birth experience

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Abstract

Background: The COVID pandemic exposed many inadequacies in the maternity care system in the United States. Maternity care protocols put in place during this crisis often did not include input from childbearing people or follow prepandemic guidelines for high-quality care. Departure from standard maternity care practices led to unfavorable and traumatic experiences for childbearing people. This study aimed to identify what childbearing people needed to achieve a positive birth experience during the pandemic.

Methods: This mixed-methods, cross-sectional study was conducted among individuals who gave birth during the COVID pandemic from 3/1/2020 to 11/1/2020. Participants were sampled via a Web-based questionnaire that was distributed nationally. Descriptive and bivariate statistics were analyzed. Thematic and content analyses of qualitative data were based on narrative information provided by participants. Qualitative and convergent quantitative data were reported.

Results: Participants (n = 707) from 46 states and the District of Columbia completed the questionnaire with 394 contributing qualitative data about their experiences. Qualitative findings reflected women's priorities for (a) the option of community birth, (b) access to midwives, (c) the right to an advocate at birth, and (d) the need for transparent and affirming communication. Quantitative data reinforced these findings. Participants with a midwife provider felt significantly better informed. Those who gave birth in a community setting (at home or in a freestanding birth center) also reported significantly higher satisfaction and felt better informed. Participants of color (BIPOC) were significantly less satisfied and more stressed while pregnant and giving birth during the pandemic.

Conclusions: High-quality maternity care places childbearing people at the center of care. Prioritizing the needs of childbearing people, in COVID times or otherwise, is critical for improving their experiences and delivering efficacious and safe care.

KEYWORDS
birth, COVID-19 pandemic, respectful care

1 | INTRODUCTION

The COVID pandemic has disrupted maternity care systems around the world.[1] During this time, the United States, with one of the highest sustained per capita levels of COVID cases and deaths,[2] experienced a nonstandardized approach to maternity care. Protocols changed rapidly, health care facilities were rearranged, virtual appointments were implemented, and care routines were disrupted. Hospitals and health care facilities were suddenly seen as potential sources of contagion, rather than protected safe spaces.[3] Meanwhile, the risk of COVID infection for mother and fetus was not well understood. Many pregnant people responded to this ill-defined and unpredictable situation by making last minute changes to their birth plans, some opting for home birth or unattended "free birth," others searching for hospitals with more favorable protocols.[4-6]

Changes to maternity care practices during the pandemic were implemented largely without input from childbearing people. At times, this led to compromised and traumatizing care.[7] Human rights violations that were documented during the pandemic include the following: refusing the right to a birth companion, interventions performed without medical reason (such as induction or cesarean section), enforced separation from the newborn without support for breastfeeding, inadequate personal protective equipment for health care workers and individuals seeking care, and limits or closure of decentralized community birth options.[7] The priorities of childbearing people are not necessarily at the forefront of maternity care when health systems are functioning normally.[8] During abrupt and widespread disruptions like the pandemic, this risk may have been amplified.

In a qualitative systematic review conducted before the pandemic, Downe et al[9] documented that women desire both safety and psychological well-being to achieve a positive birth experience. We sought to describe what US childbearing people wanted and needed to achieve a positive birth experience during the pandemic. Understanding their experiences can help guide care during future public health crises and help "disaster-proof" the US maternity care system.

2 | METHODS

This study employed a convergent parallel mixed-methods design.[10] Quantitative and qualitative data were collected simultaneously and analyzed separately by different researchers, and then, results were merged to identify areas of convergence between qualitative and quantitative data. This study was undertaken by a group of clinician researchers that included certified nurse–midwives and family nurse practitioners.

2.1 | Questionnaire development, distribution, recruitment, and sampling

Our Web-based questionnaire was developed using the Qualtrics platform (Qualtrics). It was content validated by a group of four community members who were currently pregnant or recently postpartum, three nurse–midwives, two doulas, and one midwifery trainee. It was then revised to improve content, clarity, and inclusive language. Changes to the survey included using the term "childbearing people" as a more welcoming term to transgender, genderqueer, and intersex people.[11] We consider this to be an appropriate term because gender inclusive language affirms the full spectrum of individuals who seek care from midwives and reminds us of the harmful effects of noninclusive language and marginalization. We also included a write in space for race: "other, please specify." Finally, we changed birth setting option to "home birth" and "birth center birth" instead of "community birth" or "out-of-hospital" birth to reflect language used by validators. A link to the study webpage was shared through professional and personal contacts of the study team and an extensive list of professional organizations that included lactation consultants, doulas, and childbirth/parenting advocates. Social media platforms (Facebook, Twitter, and Instagram) were used to distribute the questionnaire to new mother support groups. Reposting was encouraged in a form of snowball sampling. To increase diversity of respondents, midway through questionnaire distribution, we developed a more diverse study team (adding two Black, Indigenous, and People of color [BIPOC] researchers), revised the study page to add photos of the new members, and launched a second intensive outreach campaign via the professional and personal networks of these new members. The self-administered questionnaire was active from June 2020 to November 2020. Respondents provided informed consent before completing the questionnaire. Eligibility criteria included adults (over 18 years of age) who gave birth in the United States after March

15, 2020. This study was approved by the Yale University Institutional Review Board (ID: MOD00032835).

2.2 | Measures

High-quality maternity care places the essential needs and experiences of childbearing people at the center of care. This includes providing respectful care that supports autonomy in decision making.[8] To capture these elements of care, we included two validated instruments in the 53-item questionnaire: the Mothers on Respect (MOR) Index and the Mother's Autonomy in Decision Making (MADM) Scale. Both scales have been validated with US populations and have shown high reliability and internal consistency. The 14-item MOR index is designed to assess an individual's experience of respectful care from their maternity care provider (midwife or physician) and their comfort level in decision making. Scores range from 14 to 84 with higher scores reflecting greater respect.[12] The 7-item MADM scale allows assessment of an individual's ability to consider options for their care, make their own decisions, and have their decisions respected by their care providers. MADM scores range from 7 to 42 with higher scores reflecting greater autonomy in decision making.[13]

In addition to these validated measures, the questionnaire asked about demographics, choice of birth setting, anticipatory guidance related to COVID protocols, delivery mode, perceived stress, and birth experience. Participants rated on a Likert scale their levels of stress (1-10) and satisfaction (1-5) and how informed they felt during their experiences of pregnancy and birth (1-6). Lower scores indicated more positive experiences (less stress, higher satisfaction, and feeling better informed). The questionnaire concluded with a single open-ended question, "Is there anything you would like to share about your pregnancy and birth experience during the COVID pandemic?"

2.3 | Data analysis

Quantitative data were analyzed using SAS 9.4 for Windows. STROBE guidelines for reporting cross-sectional studies were followed. Descriptive and bivariate statistics (*t* test/ANOVA) were computed.

Qualitative data were generated from the single, open-ended question in which respondents described their individual pregnancy and birth experiences. A conventional content analysis approach was used whereby coding categories were derived directly from the text. This approach was selected given the limited amount of preexisting theory and research in the area and the unprecedented nature of health system changes during the pandemic.[14,15] Analyses were performed using Atlas.ti 9 software.

A three-person coding team developed and revised the codebook until inter-coder consensus was achieved. Content analysis was then performed by a two-person coding team with all documents coded by both researchers. Differences were discussed until consensus was achieved. Major themes were identified. A record of analytic memos and a research log comprised the audit trail for the analysis.

For integration of qualitative and quantitative findings, a joint display[16] was created presenting the qualitative themes and the related quantitative findings.

3 | RESULTS

3.1 | Sample

Participants (n = 707) from 46 states and the District of Columbia completed the questionnaire (Table 1). Most participants (64%) were between 25 and 34 years old and gave birth to their first (43%) or second (39%) child during the pandemic in April (28%), May (19%), and June (14%) 2020. Most participants had a vaginal birth (73%), were attended by an obstetrician (70%), and gave birth in a hospital (77%). Participants most often identified as white (86%), were educated at the baccalaureate level (40%) or higher (41%), were privately insured (83%), and lived in the Northeast (31%) or Midwest (31%) (Table 1).

3.2 | Quantitative results: stress, satisfaction, and feeling informed

Participants' mean stress score was 4.97 (SD 3.07), mean satisfaction score was 1.52 (SD 0.96), and mean informed score was 1.71 (SD 1.08). In bivariate analyses, stress levels were significantly different by BIPOC status ($P = .05$, BIPOC participants were more stressed), region of residence ($P = .004$, highest stress in the Northeastern United States), and birth setting ($P = .04$, lowest stress at home). Satisfaction scores were significantly different by race/ethnicity ($P = .007$, Black participants reported the lowest satisfaction), BIPOC identification ($P = .009$, BIPOC lower satisfaction), region of residence ($P = .01$, lowest satisfaction in Northeastern United States), mode of birth ($P < .0001$, vaginal birth highest satisfaction), and birth setting ($P = .0002$, hospital births had the lowest satisfaction). Experiences of feeling informed varied significantly

TABLE 1 Descriptive and bivariate statistics for stress, satisfaction, and feeling informed for women in the United States who gave birth during the COVID pandemic, 2020

Characteristic	Total participants N = 707 n (%)	Stress score (1-10) Mean 4.97 (SD 3.07)	Satisfaction score (1-5) Mean 1.52 (SD 0.96)	Felt informed score (1-6) Mean 1.71 (SD 1.08)
Maternal age (y)				
18-24	28 (4.0)			
25-34	454 (64.2)			
35-44	223 (31.5)			
45+	2 (0.3)			
Month of birth in 2020				
March	71 (10.1)			
April	194 (27.6)			
May	136 (19.4)			
June	101 (14.4)			
July	100 (14.3)			
August	68 (9.7)			
September	26 (3.7)			
October	5 (0.7)			
November	1 (0.1)			
		Bivariate *P* values for stress, satisfaction, felt informed		
Race/ethnicity[a]		**.11**	**.007***	**.05***
American Indian/ Alaska Native	6 (0.9)	7.50	1.83	2.33
Asian/Pacific Islander	14 (2.0)	5.71	1.71	2.21
Black	25 (3.6)	5.92	2.17	2.24
Latinx	68 (9.7)	5.22	1.68	1.67
Other	3 (0.5)	5.19	1.70	1.57
Multiracial	24 (3.4)	5.18	1.86	1.77
White	610 (86.2)	4.88	1.46	1.66
Identifies as BIPOC[b]		**.05***	**.009***	**.08**
Yes	121 (17.1)	5.47	1.74	1.87
No	586 (82.9)	4.87	1.47	1.67
Education		**.08**	**.26**	**.13**
No high school diploma	3 (0.4)	8.33	2.67	3.00
High school diploma/GED	19 (2.7)	3.78	1.35	1.33
Some college/2-year degree	112 (15.8)	5.40	1.65	1.78
4-year degree	281 (39.8)	4.84	1.50	1.66
Postgraduate degree	292 (41.2)	4.83	1.48	1.73
Insurance type		**.53**	**.64**	**.65**
Commercial	580 (82.5)	4.95	1.49	1.68
Medicaid	68 (9.7)	5.36	1.67	1.86
Indian Health Service	1 (0.1)	1.00	1.00	1.00

TABLE 1 (Continued)

Characteristic	Total participants N = 707 n (%)	Stress score (1-10) Mean 4.97 (SD 3.07)	Satisfaction score (1-5) Mean 1.52 (SD 0.96)	Felt informed score (1-6) Mean 1.71 (SD 1.08)
Tricare	22 (3.1)	4.24	1.48	1.76
Other	25 (3.6)	5.16	1.68	1.88
No insurance	7 (1.0)	4.71	1.71	1.43
Parity		**.87**	**.34**	**.24**
1	304 (43.1)	4.99	1.60	1.78
2	275 (39.0)	5.04	1.46	1.72
3	92 (13)	4.94	1.52	1.58
4+	35 (5.0)	5.00	1.23	1.29
Region of residence[c]		**.004***	**.01***	**.21**
Northeast	220 (31.2)	5.51	1.67	1.80
South	189 (26.8)	4.67	1.53	1.73
Midwest	218 (30.9)	4.54	1.41	1.66
West	78 (11.1)	5.30	1.34	1.51
Provider type		**.17**	**.15**	**.005***
Midwife	205 (29.0)	4.93	1.45	1.49
Family Doctor	7 (1.0)	7.00	2.00	2.00
OB/GYN	492 (69.7)	4.97	1.54	1.80
No provider	1 (0.2)	2.00	2.50	1.00
Mode of birth		**.90**	**<.0001***	**.02***
Vaginal	515 (73.0)	4.99	1.41	1.64
Cesarean	162 (23.0)	4.88	1.77	1.89
Vacuum/forceps	29 (4.1)	5.11	1.96	1.89
Birth setting		**.04***	**.0002***	**<.0001***
In hospital/attached birth center	64 (9.1)	5.24	1.42	1.78
Freestanding birth center	21 (3.0)	5.10	1.00	1.09
Home	70 (10.0)	4.40	1.16	1.21
Hospital	542 (77.3)	4.98	1.59	1.78

Note: * indicates p-value < 0.05

The lower the score (closer to 1) for Stress, Satisfaction, and Felt Informed, the better the experience (ie, lower stress, greater satisfaction, and better informed).

[a]Participants could identify as a race and Latinx ethnicity separately.

[b]BIPOC = Black, Indigenous, Person of Color. Participant self-identifies as any race other than white or as Latinx ethnicity.

[c]Regions of residence: Northeast (CT, MA, ME, NH, NJ, NY, PA, RI, and VT), South (AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX,VA, and WV), Midwest (IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, and WI), West (AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, and WY).

by race/ethnicity (P = .05, American Indian/Alaska Native participants felt the least informed), provider type (P = .005, participants with a midwife provider felt the best informed), mode of birth (P = .02, participants with a vaginal birth felt better informed), and birth setting (P < .0001, those who gave birth in a hospital or a birth center within a hospital [not freestanding] felt the least informed).

3.3 | Qualitative results

Over half (n = 394) of the participants contributed narrative comments about their birth experiences during the pandemic. Four major themes were identified: (a) anticipatory stress and fear, (b) community birth, (c) unnecessary interventions, and (d) the pandemic care rush. These themes were identified along with related

mitigating factors that led to a more positive birth experience. Themes related to positive birth experience included: (a) information and affirmation, (b) access and options, (c) advocacy, and (d) the midwifery model of care. Convergent quantitative data are reported in a joint display (Table 2).

3.4 | Anticipatory stress and fear

Stress and fear predominated for those giving birth during the pandemic. This fear was consistently anticipatory, occurring most often in the late stages of pregnancy as birth plans were thrown into disarray by constantly evolving protocols and lack of communication. The most consistent sources of fear and stress included giving birth without a partner or support person, being separated from the baby, catching COVID, or being isolated from family.

> The stress of the pandemic and keeping myself and both my babies healthy was overwhelming ... Not knowing about transmission to the baby if I got sick, stopping work two months early to limit my exposure, having to fight to keep from being separated if I or my husband tested positive, not seeing my oldest for over 5 days. ...no celebrations welcoming our baby into the world, limited help from family ...
>
> (KH, Missouri, birth center)

Rapidly changing plans and unknown developments that eluded even care providers left many in a state of exhausted agitation.

> The month before giving birth was the most stressful. As the rules kept changing seemingly daily, the midwives barely seemed to be able to keep up. Every time I went for an appointment, there was a new restriction or rule. Every restriction made me more fearful about how my birth would go. I felt like all of the choices were being taken away from me.
>
> (KM, Maryland, hospital)

Lack of acknowledgment of the gravity of the issue combined with a dearth of advice amplified fear.

> The risk of COVID-19 to me and my baby was never discussed with me. The hospital acted like everything was fine ... I was also terrified to go home and didn't know how to protect

TABLE 2 Joint display: Qualitative themes with convergent quantitative data

Pandemic care experience: Major qualitative themes	Convergent quantitative data	Mitigating factors: Major qualitative themes
Anticipatory stress and fear "my biggest takeaway is that the lead up to the birth was terrifying"	The more informed a participant felt, the lower their stress level. Conversely, those participants who felt ill-informed reported the highest stress levels	**Information and affirmation** "I felt that my care providers were very transparent with information and reassured me of the care plan I had chosen"
Community birth "COVID solidified my choice to give birth outside a hospital"	47% (188) participants considered giving birth at home or in a birth center that was not located inside a hospital. Participants who had a community birth had the most satisfaction and felt the best informed	**Access and options** "With or without COVID-19, more women, especially WOC (women of color) and African American women should have the option and have the resources facilitated for births outside hospital"
Unnecessary interventions "I chose to induce at 39 weeks to get in and out of the hospital hopefully before anything got worse"	53 participants had a mandatory epidural, labor induction, or mandatory cesarean due to COVID-19. 58% (94/162) of participants had an unplanned cesarean	**Advocacy** "I do think giving birth without my doula caused me to opt for more interventions than I would have in normal circumstances"
The pandemic care rush "I sincerely hope it (COVID) sheds light on how utterly broken our maternity care system is"	31% of participants held back asking questions because their doctor or midwife felt rushed. Of these, 36% (95/262) of OB participants felt rushed vs. 21% (27/130) of midwifery participants	**The midwifery model of care** "Your Dr/doula/midwife should be your most trusted advisor. You should feel comfortable asking any question and they should give answers to the best of their knowledge"

> him. Not one single nurse or doctor ever gave any advice or protocols.
>
> (HK, Missouri, hospital)

3.5 | Information and affirmation—the antidote to anticipatory stress and fear

A positive birth experience was often salvaged by transparency and affirmation from care providers.

> We had a great experience, granted it was early on, but my providers gave me information as they received it. Communication was great throughout.
>
> (AC, Michigan, hospital)

Underlining the power of affirmation from care providers, a simple statement of support from the health care team could open the door to a positive experience that left women feeling grateful and supported even when laboring alone.

> I had a mental breakdown in the middle of pushing and every person there grabbed my hands and the doctor told me 'today we are your family and we are gonna get through this together.' I will be forever thankful for them.
>
> (TH, Michigan, hospital)

3.6 | Community birth

Fear and stress often led people to "vote with their feet" and seek alternative birth places, even though the pathway to this choice was complicated:

> I had three different care providers during this pregnancy. I started with a hospital-based midwifery practice near my home. Then I used another hospital-based midwifery and OB practice while I stayed out of state with my parents... Before returning home at the beginning of my 3rd trimester, I switched to a home birth midwife.
>
> (EK, New York, home)

COVID provided a tipping point for many that legitimized a community birth option.

> The thing is, we (my husband especially) wouldn't have had the courage to try homebirth if it weren't for these circumstances. I really strongly believe now that birth in your own home is so much easier for your body (and your mind) than birth under fluorescent lights, with masks and gloves, and lots of strangers watching.
>
> (MM, Minnesota, home)

After the fact, many expressed their happiness with this choice.

> Despite all of the stress and anxiety surrounding being pregnant during a pandemic ...my home birth was incredibly calm, peaceful, and healing. It was beautiful and easy, and I didn't feel stressed or anxious at all in labor. My first birth was in a hospital not during a pandemic and it was the most stressful, overwhelming thing I've ever experienced.
>
> (CB, Colorado, home)

3.7 | Access and options—overcoming barriers to community birth

Regardless of women's desire for community birth, barriers to access remained, limiting the viability of this option for many. These barriers related to insurance coverage, distance, state regulations, limited providers, and stigma.

> It is very difficult to have a legal home birth midwife in NC, and this was something we struggled with, but in the end, we made the right choice (to continue with a home birth) and I'm very satisfied.
>
> (LC, North Carolina, home)

Many risked long distances to have the birth experience they desired.

> I am a doula and I was watching my client's rights be taken and I didn't want that to happen to me. So, I decided to deliver at a free-standing birth center even though it's an hour from my house so I could have the birth I deserve and truly wanted.
>
> (AK, Missouri, birth center)

Lack of support and stigmatization from health care providers provided another access barrier.

> Upon advocating for myself and choosing to leave the hospital to return to my midwife

> team & home birth plans, I was treated very rudely and as though I was going to die.
>
> (HO, Florida, home)

3.8 | Unnecessary interventions

People experienced birth-related interventions, at times without medical reason, simply to avoid a theoretical risk of COVID exposure.

> Because of prior preeclampsia I decided to 'just have a c section' when COVID hit. Without COVID, [I] would have likely tried for VBAC.
>
> (KS, Pennsylvania, hospital)

These interventions felt more positive when the individual controlled the choice.

> I was induced before my due date in order to give birth before the coronavirus escalated even more. ... Even though I was originally very opposed to induction ... I chose to be induced this time because of COVID.
>
> (ST, Maryland, hospital)

However, when individual control was denied, the experience was devastating.

> Doctors couldn't or were not willing to answer most questions and I felt I was forced to have a C section earlier than expected. My doctor rushed me to have it the same day I came for a regular checkup because they had an opening at the surgery room. I didn't have a single contraction and my baby and I didn't feel ready at all. Overall, it was a horrible experience.
>
> (AR, New York, hospital)

3.9 | Advocacy improves control of interventions

Greater advocacy—especially from a doula or midwife—was often seen as an antidote to unnecessary intervention. Advocates were viewed as protective and integral to well-being.

> The major way that COVID-19 affected my birth is that when I had to transfer to the hospital, only my husband was allowed with me ... Because of this, I feel that I was not able to appropriately advocate for myself due to my husband and I both being in such an exhausted state ... I was given an array of interventions that I may not have agreed to if I had the mental capacity or assistance from a doula/midwife to consider the risks and benefits.
>
> (AB, California, hospital)

The lack of an advocate increased fear and stress.

> Scary, overwhelming and intense. Especially being an African American woman. I was worried about the virus while also trying to advocate for myself without my doula present.
>
> (BJ, Texas, hospital)

On the other hand, when care providers advocated for them, individuals felt supported and protected.

> I am incredibly grateful for the birthing center midwives' advocacy for sensible hospital policies. Their persistent advocacy meant that this was the only area hospital that continued to allow doulas to attend births as part of the essential medical team.
>
> (ER-A, Missouri, hospital)

3.10 | The pandemic care rush

Individuals felt particularly neglected when their providers failed to navigate the system for them, instead giving in to their own feelings of being overstretched or overwhelmed.

> My OBGYN was rushed, he did not take time to explain to me what to expect with the pandemic.
>
> (Anonymous, Texas, home)

Lack of information translated into fear and feelings of unequal treatment.

> Not one single nurse or doctor ever gave any advice or protocols. It's been so scary and still is! I knew because I had Medicaid, I would be treated differently and I was. I did not have the same experience as my good friend who had a baby a few weeks before me.
>
> (HK, Missouri, hospital)

Rapidly evolving institutional policies deprived individuals of choice.

> Every time I went for an appointment, there was a new restriction or rule. Every restriction made me more fearful about how my birth would go. I felt like all of the choices were being taken away from me.
>
> (KM, Maryland, hospital)

3.11 | The midwifery model of care mitigates loss of humanized care during the pandemic

During the pandemic, many individuals switched to midwifery-led care which they perceived as providing greater transparency, information, and respect.

> The care I received from the midwife team ... was AMAZING I felt respected and that my preferences were listened to and attended to. I absolutely loved it.
>
> (Anonymous, Connecticut, birth center)

The decision to switch to midwifery care salvaged a positive birth experience for some.

> Going the midwife route changed my whole entire pregnancy. I was cared for and listened to and thought of as important unlike any doctor or medical staff member I saw.
>
> (YM, New York, home)

The switch allowed others to feel validated and in control.

> Midwives are an integral part of the birthing experience. They ensure that a woman is well informed during the entire experience. They include you as part of the team.
>
> (TM, New York, home)

The principles of the midwifery model of care—in which those seeking care and those providing care work in equal partnership—were valued, regardless of provider type.

> My OBGYN was very open about all the possibilities and presenting all options and helped talking through pros and cons of each. She was not pushy and always left the decisions to me and my partner.
>
> (JR, California, hospital)

4 | DISCUSSION

The International Confederation of Midwives released a Global Call to Action to sustain care for women, newborns, and their families during the COVID pandemic. This emphasized the importance of maintaining essential, evidence-based care as a means to improving maternal health outcomes.[17] This was echoed in a joint statement by the American College of Obstetricians and Gynecologists, American College of Nurse Midwives, American Academy of Family Physicians, and the Society of Maternal Fetal Medicine.[18] Despite these resolutions, no mechanism was in place to build health care response around the priorities of childbearing people during the pandemic. In our study, their voices overwhelmingly emphasized the need for person-centered, respectful care along with the ability to make informed, supported choices. When individuals received this care, fear and stress were reduced and they reported a positive birth experience despite chaotic and unpredictable times.

The safety equation for childbearing people in our study was dramatically altered during the pandemic. Suddenly, fear of contagion, the threat of giving birth alone, and being separated from their baby made hospital birth seem like a risky choice. This echoes findings from a large cross-national study that reported on threats to maternal mental health related to COVID including isolation from family, threat of infection to the baby, lack of a birth support person, and altered birth plans.[19] Many who had never considered community birth sought out the option for a home or birth center birth.[20] Similarly, recent results from a national survey demonstrated that nearly 1 in 4 pregnant respondents (24.5%) considered home birth as an option.[3] Those who opted for community birth in our study, often reflected that their birth experience felt transformative. Many other high-income countries provide community birth options that are available, accessible, and well-integrated into the maternity care system; however, this is not often the case in the United States.[21] The pandemic has forcefully revealed this deficit. Further work to build community birth infrastructure in the United States is sorely needed to support low-risk individuals who desire an undisturbed physiologic birth in the setting of their choice.

The pandemic also changed practice in regard to birth-related interventions. For example, no clinical evidence suggested that the projected volume of COVID cases was a medically necessary indication for pregnancy interventions, yet many in our study reported this practice. These interventions included mandatory epidurals, inductions, cesarean sections, and stripping membranes (separating the amniotic sac from the uterus at the level of the cervix). It is clear that individuals in our study felt more

empowered when they participated in the decision to intervene and felt violated when they could not. This type of fear-driven decision making might have been less common if birth setting options, such as along-side maternity care units where pregnant people do not overlap with the general inpatient population, were more widely available.

High-quality maternity care places childbearing people at the center of care.[8] The voices reflected in our study suggest that this need is heightened, not diminished, during an emergency. The right to a close personal advocate and the option of midwifery care are highly valued. Key components of midwifery practice, namely, trust, individualized care, and empowerment,[22] were appreciated by many who were cared for by midwives, or by physicians who demonstrated these priorities. In this study cohort, we found that participants who had a midwife provider and those who had a homebirth were three times more likely to experience person-centered maternity care.[23] As compared to most other high-income countries where women and babies enjoy vastly better outcomes in terms of mortality and morbidity, the United States lags in providing the option for midwifery care.[21] In addition to improving birth setting options, increasing access to midwifery care is needed.

4.1 | Strengths and limitations

This mixed-methods study provided a unique, data-rich analysis of the experience of individuals who were pregnant and gave birth during the COVID pandemic. The integration of quantitative and qualitative findings provides methodological integration that reinforces the consistency of our results.[15] The findings of this study can inform health system responses during future care disruptions. Despite attempts to diversify the sample, this study was limited by the under-representation of BIPOC individuals. It is also subject to selection bias given that it was a self-administered questionnaire that was distributed through social media, doula, midwifery, and parenting advocacy groups. Compared with the US general population, our sample had a higher percentage of individuals who were white (US, 68%),[24] educated at baccalaureate level or higher (US, 32%),[24] and privately insured (US, 68%)[25]; therefore, findings cannot be generalized to other populations. Although our sample size was relatively large, it represents a very small percentage of the childbearing population in the United States where nearly 4 million births occur annually.[26]

4.2 | Implications and conclusions

The maternity care response to the pandemic was nonstandardized and frequently abandoned best-practice guidelines.[27] The findings of our study suggest that when health system functioning is threatened by a public health crisis, we fall short of optimal care. First, the voices of childbearing people need to be systematically incorporated into care protocols and practices. This is an accepted cornerstone of high-quality maternity care that, when overlooked, has been shown to cause dissatisfaction, harm, and the underutilization of services.[28] Second, it is critical that providers maintain meaningful contact and transparency even when information is rapidly evolving or unknown. Third, birth setting options that span community and hospital birth should be integrated into the health care system. The predominance of in-hospital birth in the United States with limited community birth options felt unsafe or inadequate for many. Finally, access to midwifery care needs to be expanded.

It is predicted that significant threats to the health care system related to climate change, severe weather events, and changing infectious disease patterns will become more frequent.[28] The COVID pandemic revealed many cracks in the US maternity care system. Integrating lessons learned during this time and centering care around the needs and priorities of childbearing people will improve our capacity to deliver high-quality care in future.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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REFERENCES

1. World Health Organization. Pulse survey on essential health services during the COVID-19 pandemic: interim report. 2020. Accessed February 17, 2021. https://www.who.int/publications/i/item/WHO-2019-nCoV-EHS_continuity-survey-2020.1
2. Johns Hopkins University. Coronavirus resource center. 2020. Accessed February 17, 2021. https://www.google.com/url?q=https://coronavirus.jhu.edu/&sa=D&source=editors&ust=1613156023540000&usg=AOvVaw3xOCsYtq0WGGn6WqS08sSo
3. Bradley D, Blaine A, Shah N, Mehrotra A, Gupta R, Wolfberg A. Patient experience of obstetric care during the COVID-19 pandemic: preliminary results from a recurring national survey. *J Patient Exp*. 2020;7(5):653-656.

4. de Freytas-Tamura K. Pregnant and scared of 'COVID hospitals,' they're giving birth at home. *New York times*. April 24, 2020.
5. Nelson A, Romanis EC. Home-birthing and free-birthing in the era of COVID-19. *BMJ Sex Reprod Health*. 2020. Accessed April 2, 2020. https://blogs.bmj.com/bmjsrh/2020/04/02/home-birth-covid-19/
6. Dahlen H. During COVID-19, women are opting for "free-birthing" if homebirths aren't available, and that's a worry. *The Conversation*. July 9, 2020. Accessed February 17, 2021. https://medicalxpress.com/news/2020-07-covid-women-opting-freebirthing-homebirths.html
7. Human Rights in Childbirth. Human rights violations in pregnancy, birth and postpartum during the COVID-19 pandemic. 2020. Accessed February 17, 2021. http://humanrightsinchildbirth.org/wp-content/uploads/2020/05/Human-Rights-in-Childbirth-Pregnancy-Birth-and-Postpartum-During-COVID19-Report-May-2020.pdf
8. Renfrew MJ, McFadden A, Bastos MH, et al. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. *Lancet*. 2014;384(9948):1129-1145.
9. Downe S, Finlayson K, Oladapo O, Bonet M, Gülmezoglu AM. What matters to women during childbirth: a systematic qualitative review. *PLoS One*. 2018;13(4):e0194906.
10. Curry L, Nunez-Smith M. *Mixed Methods in Health Sciences Research, A Practical Primer*. SAGE; 2015.
11. Midwives Alliance of North America. Advocacy: use of inclusive language. 2020. Accessed June 1, 2021. https://mana.org/healthcare-policy/use-of-inclusive-language
12. Vedam S, Stoll K, Rubashkin N, et al. The mothers on respect (MOR) index: measuring quality, safety, and human rights in childbirth. *SSM Popul Health*. 2017;3:201-210.
13. Vedam S, Stoll K, Martin K, et al. The mother's autonomy in decision making (MADM) scale: patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care. *PLoS One*. 2017;12(2):e0171804.
14. Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005;15(9):1277-1288. doi:10.1177/1049732305276687
15. Patton MQ. *Qualitative Research and Evaluation Methods*. SAGE; 2015.
16. Guetterman TC, Fetters MD, Creswell JW. Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *Ann Fam Med*. 2015;13(6):554-561. doi:10.1370/afm.1865
17. International Confederation of Midwives. Call to action: protecting midwives to sustain care for women, newborns and their families in the COVID-19 pandemic. Accessed February 28, 2021. https://www.unfpa.org/sites/default/files/resource-pdf/Call_to_Action.pdf
18. American College of Obstetricians and Gynecologists. Patient-centered care for pregnant patients during the COVID-19 pandemic. Accessed February 28, 2021. https://www.acog.org/-/media/project/acog/acogorg/files/advocacy/letters/patient-centered-care-for-pregnant-patients-during-the-covid-19-pandemic.pdf?la=en&hash=B1C126841E86BA4A69547BE518BA9047
19. Basu A, Kim HH, Basaldua R, et al. A cross-national study of factors associated with women's perinatal mental health and wellbeing during the COVID-19 pandemic. *PLoS One*. 2021;16(4):e0249780. doi:10.1371/journal.pone.0249780
20. Davis-Floyd R, Gutschow K, Schwartz DA. Pregnancy, birth and the COVID-19 pandemic in the United States. *Med Anthropol*. 2020;39(5):413-427. doi:10.1080/01459740.2020.1761804
21. Shaw D, Guise JM, Shah N, et al. Drivers of maternity care in high-income countries: can health systems support woman-centered care? *Lancet*. 2016;388(10057):2282-2295. doi:10.1016/S0140-6736(16)31527-6
22. Perriman N, Davis DL, Ferguson S. What women value in the midwifery continuity of care model: a systematic review with meta-synthesis. *Midwifery*. 2018;62:220-229. doi:10.1016/j.midw.2018.04.011
23. Basile-Ibrahim B, Kennedy H, Combellick J. Experiences of quality perinatal care during the 2020 US COVID-19 pandemic. *J Midwifery Womens Health*. 2021;66(5):579-588.
24. United States Census Bureau. Quick facts United States. 2020. Accessed May 12, 2021. https://www.census.gov/quickfacts/fact/table/US/PST045219
25. United States Census Bureau. Health insurance coverage in the United States. 2019. Accessed May 12, 2021. https://www.census.gov/library/publications/2020/demo/p60-271.html
26. Hamilton BE, Martin JA, Osterman MJK. Vital statistics rapid release: births: provisional data for 2019. 2019. Accessed June 29, 2021. https://www.cdc.gov/nchs/data/vsrr/vsrr-8-508.pdf
27. Niles PM, Asiodu IV, Crear-Perry J, et al. Reflecting on equity in perinatal care during a pandemic. *Health Equity*. 2020;4(1):330-333. doi:10.1089/heq.2020.0022
28. The Lancet. Maternal health: an executive summary for the Lancet's series. 2016. Accessed May 15, 2021. https://www.thelancet.com/pb/assets/raw/Lancet/stories/series/maternal-health-2016/mathealth2016-exec-summ.pdf

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