Expecting During the Unexpected:
The Emotional Experiences of Pregnant Women During the COVID-19 Pandemic

Undergraduate Honors Thesis in Gender & Health

Department of Women's and Gender Studies
The University of Michigan, Ann Arbor

Mariel Manzor

April 2021

The research forming the basis of this thesis was approved by the University of Michigan's IRB (HUM00185085)

Advisor:
Joanne Motiño Bailey, CNM, Ph.D.
Director, UMHS Nurse-Midwifery Service
Department of Obstetrics and Gynecology
Collegiate Lecturer in Women's and Gender Studies,
The University of Michigan

Second Reader:
Cynthia Gabriel, Ph.D.
Lecturer III and Academic Advisor in
Women's and Gender Studies,
The University of Michigan

Acknowledgements

I would like to express my sincere gratitude to a great number of people without whom writing and researching this thesis would not have been possible. Thank you to my advisor, Joanne Motiño Bailey, CNM, Ph.D., who helped guide me through the past year with unending kindness, patience, and wisdom. Your feedback, mentorship, and assistance was invaluable throughout this project. Thank you to my second reader, Cynthia Gabriel, Ph.D., as well as my thesis instructors, Professor Sara McClelland and Professor Leela Fernandez, for their constant support. The countless resources and advice you provided was pivotal in shaping my work. Thank you so much to all those who I had the privilege of interviewing about their experiences being pregnant and giving birth during the COVID-19 pandemic. Your stories touched me greatly and I will carry them with me far beyond the completion of this thesis. Working with all those mentioned above has been the highlight of my time at the University of Michigan. The creation of this thesis has been the most impactful experience and I could not have done it without all of you. I would also like to thank my support network of friends and family whose encouragement in everything keeps me going. I am forever grateful.

Table of Contents

Abstract

This thesis documents the prenatal and postpartum experiences as well as the birth stories of women during the coronavirus (COVID-19) pandemic. It was framed within the wider context of caring for pregnant women during challenging times as well as how the healthcare system and broader society should best support them. Personal interviews of women of various backgrounds and documenting their first-hand experiences during their prenatal care, their labor and delivery process, and postpartum care formed the basis of my own research. I focused on what women wished was available to them in terms of support, resources, and information as well as the ways they coped with having a child during the COVID-19 pandemic. My analysis was conducted using a double-hermeneutic feminist narrative analysis. Utilizing this framework ensured that these stories were purposely told within historical, structural, and ideological contexts and the agency, voice, and identities of storytellers were centralized. Looking forward, this information can be used to inform health professionals on how to better support pregnant women and to emphasize listening to firsthand experiences within the wider discussion of improving maternal health outcomes.

Introduction

> *"Stories matter. Many stories matter. Stories have been used to dispossess and to malign, but stories can also be used to empower and to humanize. Stories can break the dignity of a people, but stories can also repair that broken dignity."*
>
> *Chimamanda Ngozi Adichie*

Pregnant women[1] experience a mixture of challenges and joy through the prenatal period, birthing process, and postpartum period. During particularly devastating periods of time, such as a worldwide public health crisis like a pandemic, their experiences can become fraught with many difficulties. The COVID-19 pandemic brings with it an unprecedented amount of uncertainty for pregnant women in the United States. It is, therefore, vital that research is conducted in order to illuminate their stories and bring awareness to the systemic changes in the healthcare system and broader society needed to better support pregnant women and lessen these hardships. Listening to and documenting these stories of women who were pregnant or gave birth during the first year of the COVID-19 pandemic is the first step towards empowering and humanizing the perspectives of this population.

COVID-19 was first identified in December 2019 and the first cases in the United States were reported in January 2020. It is a respiratory illness which has symptoms including cough, fever or chills, shortness of breath or difficulty breathing, muscle or body aches, sore throat, loss of taste or smell, diarrhea, fatigue, headaches, nausea or vomiting, and congestion. COVID-19 can be a severe disease and has resulted in over 560,000 deaths in the United States alone as of April 14th, 2021 ("COVID Data Tracker," 2021). It is spread person to person through droplets released into the air whenever an infected individual coughs or sneezes ("Coronavirus Disease *2019*," 2021). The droplets do not travel more than a few feet and they can fall onto the ground or onto surfaces ("Coronavirus Disease 2019," 2021). The incubation period is 14 days—people show symptoms of COVID-19 within 14 days of being exposed to the virus. In order to prevent the spread of COVID-19, physical distancing, masking, and quarantining when sick are all effective and proven tools ("Coronavirus Disease 2019," 2021). There is a laboratory test for COVID-19 which can help give a COVID-19 diagnosis ("Treatments for COVID-19," 2021).

[1] Within the context of this paper, I will be referring to pregnant individuals as pregnant women as this is consistent with the language used both widely in the research I analyzed and because all of the individuals I interviewed identified as women. However, this language is used while recognizing the diversity of experiences and that not all people who are pregnant identify as women.

There has been one drug, remdesivir, approved by the Food and Drug Administration (FDA) to treat COVID-19 and the FDA also approved the use of monoclonal antibodies, casirivimab and imdevimab, to be used in the treatment of mild to moderate COVID-19 ("Treatments for COVID-19," 2021). Additionally, there are currently three COVID-19 vaccines approved by the FDA, the Pfizer-BioNTech COVID-19 vaccine, the Moderna COVID-19 vaccine, and the Janssen COVID-19 vaccine ("COVID-19 Vaccines," 2021).

The CDC states that pregnant women are at a higher risk for severe illness and death due to COVID-19 as compared to non-pregnant people ("COVID-19 and Your Health: Pregnant People," 2021). Additionally, pregnant women who also have COVID-19 are at a higher risk for adverse outcomes ("Understand how COVID-19 might affect your pregnancy," 2020). Therefore, it is very important for pregnant people and those that they live with do everything possible to protect themselves from COVID-19. The CDC recommends that all pregnant women limit interactions with people in general and especially people who may be exposed to COVID-19, wear a mask and avoid others who do not wear a mask, stay at least 6 feet away from people who are outside of their household, and wash hands with soap and water often ("COVID-19 and Your Health: Pregnant People," 2021). In order to stay as healthy as possible throughout pregnancy, the CDC recommends that women keep all their healthcare appointments during and after pregnancy, get the recommended vaccines such as the influenza vaccine and whooping cough (Tdap) vaccine, keep at least a 30-day supply of prescription and non-prescription medication, and to not delay getting care because of COVID-19 ("COVID-19 and Your Health: Pregnant People," 2021). Additionally, the CDC also recommends that if a pregnant woman is part of the group recommended to receive the COVID-19 vaccine, they should speak with their healthcare provider ("COVID-19 and Your Health: Pregnant People," 2021).

The American College of Obstetricians and Gynecologists released statements that researchers are still learning exactly how COVID-19 affects pregnant women but there are current reports on a number of specific complications and difficulties pregnant women face. It has been documented that pregnant women who have COVID-19 and show symptoms are more likely than non-pregnant women with COVID-19 and symptoms to require care in the intensive care unit (ICU), to need a ventilator to support their breathing, or to die from the virus ("Coronavirus (COVID-19) and Women's Health Care: A Message for Patients," 2021). However, the overall risk of severe illness and death for pregnant women is low ("Understand

how COVID-19 might affect your pregnancy," 2020). Research has also shown that pregnant women who are Black or Hispanic have a higher rate of illness and death from COVID-19 than other pregnant women ("COVID-19 may lead to more maternal deaths among blacks, Latinos," 2021). This is not due to biology but rather because Black and Hispanic women are more likely to face various health, economic, and social inequities that make them higher risk for illnesses. (Bediako et al., 2015). Understanding of the potential fetal risks of COVID-19 is limited. A few cases of COVID-19 may have passed to a fetus during pregnancy, but this seems to be a very rare occurrence ("Novel Coronavirus 2019," 2021). Additionally, researchers conflict on whether or not COVID-19 can cause preterm birth and stillbirth due to limited information ("Novel Coronavirus 2019," 2021).

COVID-19 greatly affects the ways in which pregnant women accessed prenatal and postpartum care. The CDC and the American College of Obstetrics and Gynecology both recommend that women keep their prenatal and postpartum care visits ("Patient-Centered Care for Pregnant Patients During the COVID-19 Pandemic," 2021). Women may have fewer or more spaced out visits or they may have visits that are completely virtual ("Understand how COVID-19 might affect your pregnancy," 2020). For virtual visits, women often have to purchase their own devices, such as a blood pressure cuff and a fetal Doppler monitor, and share the values with their doctor or midwife ("Understand how COVID-19 might affect your pregnancy," 2020). It is also important for pregnant women to continue getting the health care they need to stay healthy and this includes getting any screenings, tests, and vaccines that are necessary ("Patient-Centered Care for Pregnant Patients During the COVID-19 Pandemic," 2021). In regards to pregnant and postpartum women managing stress, anxiety, and depression due to COVID-19, the American College of Obstetrics and Gynecology recommends keeping in touch with family and friends virtually ("Patient-Centered Care for Pregnant Patients During the COVID-19 Pandemic," 2021). There are also various treatment and support resources that pregnant and postpartum women can access virtually and they should get in contact with their healthcare professionals in order to figure out the best individuals to seek out ("Patient-Centered Care for Pregnant Patients During the COVID-19 Pandemic," 2021).

The labor and delivery process looks different for women during COVID-19. Women are still advised to plan the birth they want, whether at home or at a hospital, with their healthcare team whether that includes a midwife, doula, physician, or nurses ("Care for Pregnant People,"

2021). The hospital or birthing center may have new policies due to COVID-19 and so adjustments to birth plans may need to be made. Depending on the healthcare facility, there may be a limitation on the number of people able to be in the room during the birth and a change in the number of days women and their newborns will stay following the birth (Shah Arora et al., 2020). Additionally, laboring women will most likely be tested for COVID-19 prior to being admitted ("Care for Pregnant People," 2021). If a pregnant woman has COVID-19 when she goes into labor, they should wear a mask while in the healthcare facility and while near their healthcare providers ("Care for Pregnant People," 2021).

The information referenced above is an overview of the guidelines and research available to the public when I conducted the research for this thesis. It demonstrates the reality that although there was some information available, several things remained uncertain for pregnant women and narrative research was greatly lacking. This thesis serves as a way to increase the visibility of these personal stories, to simultaneously illuminate and fill in the gaps in the literature, and contribute to the overall discourse on how to best care for pregnant women during catastrophic events.

Literature Review

Introduction

Due to the overall limited scope of information available on novel COVID-19, the context for this thesis was found in the experiences and outcomes for pregnant women during other difficult and devastating periods of time in history, including other pandemics as well as natural disasters. Analyzing the research that has been conducted on these past events and pregnant women demonstrates the many missing pieces in regards to improving outcomes and support during these periods in time as well as potential solutions. It is also relevant to include the current findings on other issues pertaining to pregnant women, such as maternal morbidity, as well as the little peer reviewed literature and guidelines available on COVID-19 and pregnancy. In order to have an informed discussion on pregnancy and birthing, particularly in the time of a public health crisis, it is vital that each of these topics is fully explored and analyzed.

Impact of Past Epidemics and Pandemics on Pregnant Women

Past pandemics have impacted pregnant women in many ways including but not limited to increasing mortality, increasing risk for complications, and decreasing equitable access to healthcare professionals and support systems. During the 1918 influenza pandemic in the United States, there was a concurrent spike in maternal mortality (Schuchat, 2011). In 2009 during the influenza A(H1N1) pdm09 pandemic, pregnant women were at a high risk of severe complications including death and intensive care unit admission (Steinhoff et al., 2012). Because pregnancy brings with it immunological changes, influenza virus infection during pregnancy can lead to increased risk for women and their infants (Steinhoff et al., 2012). During the influenza A(H1N1) pdm09 pandemic, 12% of pregnancy-related deaths were attributed to confirmed or possible influenza A (H1N1) pdm09 virus infection (Callaghan et al., 2015).

Another pandemic disease that has affected pregnant women throughout history is tuberculosis (TB). Humans first acquired tuberculosis some 5,000 years ago (Buzic & Giuffra, 2020). This disease continues to be prevalent in all countries in the world and in 2019, a total of 1.4 million people died from tuberculosis (Buzic & Giuffra, 2020). It is particularly endemic in certain regions including India, Indonesia, China, the Philippines, Pakistan, Nigeria, Bangladesh, and South Africa (“Global Tuberculosis Report,” 2018). There, TB is a major cause of death in women of reproductive age and it has also been reported to be the major non-obstetric cause of maternal death, especially when individuals are co-infected with HIV (Loto & Awowole, 2012).

Latent TB reactivation risk is increased in the postpartum period due to the makeup of the individual's immune system at this point in time (Beckerman, 2010). Two-thirds or more of pregnant women are asymptomatic at presentation but with active disease, increased risk of adverse outcomes such as preterm delivery, low birth weight, and perinatal death have recently been confirmed in a comprehensive meta-analysis (Beckerman, 2010). It is also proposed that measuring the TB prevalence in a well characterized cohort of pregnant women could serve to better understand TB transmission in this community and doing so is both globally relevant and timely as it could be used in the WHO End TB Strategy (Loto & Awowole, 2012). Additionally, universal testing and treatment of pregnant women continues to be central to the goal of eliminating TB (Beckerman, 2010).

The Ebola epidemic outbreak in West Africa from 2014-2016 significantly affected pregnant women. There was great stigmatization in terms of the health care services that pregnant women were able to access, whether or not they had Ebola. This stigma ended up reducing pregnant women's overall access to health care during the epidemic (Bebell et al., 2017). Pregnant women and their relatives were afraid of going to any health clinic because they feared contracting the disease and health care workers were oftentimes stigmatized themselves as carriers of Ebola (Bebell et al., 2017). Furthermore, the process of birth itself, which involves high levels of risk for exposure to bodily fluids made healthcare workers stigmatize women when they sought healthcare services during pregnancy and childbirth (Strong & Schwartz, 2018). In many of the countries where the Ebola outbreak was the worst, women already faced high rates of pregnancy-related death, some of the highest in the world (Strong & Schwartz, 2018). The high fatality rate for pregnant women with Ebola was found to be related to several factors including heightened discrimination and stigma around seeking healthcare during pregnancy and birth (Strong & Schwartz, 2018). The Ebola crisis demonstrated the need for the strengthening of current healthcare systems in order to prevent outbreaks and improve healthcare outcomes for all patients, including pregnant women (Haddad et al., 2018).

Impact of United States Natural Disasters on Pregnant Women

Various types of natural disasters can greatly impact the childbearing experience. These experiences are relevant within a broader context of analyzing the diverse journeys of women through their pregnancies because natural disasters are another type of catastrophic event, in addition to pandemics, which have had documented impacts on pregnant women. For example,

pregnant women are among the most vulnerable populations during and in the aftermath of natural disasters (Marshall et al., 2020). During Hurricane Katrina in 2005, pregnant women reported that they experienced disruption of their lives, lack of reliable information and resources, and had to cope with loss of expectations regarding their pregnancy (Callaghan et al., 2007). These individuals also relied on family and friends for support and had to interact with healthcare professionals in a very different way (Callaghan et al., 2007). Nurses and other healthcare professionals were shown to be very reassuring to those who are giving birth, giving them various techniques to cope with stress (Rhodes et al., 2010). This was significant considering one third of women living in post-Katrina New Orleans experienced depression and postpartum women were profoundly associated with decreased mental health (Badakhsh et al., 2010). Additionally, poor social support was directly associated with greater levels of depression, post-traumatic stress disorder, anxiety, and stress (Badakhsh et al., 2010).

Following Hurricane Katrina there was a greater emphasis on improving disaster responses in the United States in order to better address the needs of pregnant women and newborns including redesigning guidelines and standards of care (Giarratano et al., 2019). Several problems have been rectified because these issues have been highlighted including the initial separation of mothers and babies, inadequate obstetrical and neonatal medical supplies in shelters, and lack of transport and surge plans for birth and newborn care during disasters in hospitals in the United States (Giarratano et al., 2019). As a result, during recent urban disasters such as in 2012 in New York during Hurricane Sandy and in Texas and Florida during Hurricanes Harvey and Irma in 2017, there were improved perinatal preparation and disaster responses (Giarratano et al., 2019).

Nonetheless, Hurricane Sandy still managed to have a profound impact on pregnant women. Pregnancy complication visits increased during the month in which Hurricane Sandy occurred (Jeffers & Glass, 2020). Emergency department visit for spontaneous abortions, threatened abortions, threatened delivery, early onset of delivery, renal disease and diabetes or abnormal glucose tolerance had higher numbers than those in the similar time period of other years and also had significantly higher visit numbers than those in the two weeks before Sandy (Jeffers & Glass, 2020). Overall, the Emergency department visits for pregnancy complications in the eight impacted counties increased 6.3% (Xiao et al., 2019). Furthermore, Emergency department visits for pregnancy complications continued to be elevated in the two and three

months after the natural disaster (Xiao et al., 2019). Mental illness, including depression and anxiety, in postpartum women peaked 8 months after the natural disaster (Xiao et al., 2019). This demonstrates that hurricanes can impact the health of pregnant and postpartum women both during the event and months after. There needs to be more preparedness and response that considers the healthcare needs for pregnant women before hurricanes occur (Xiao at al., 2019).

Comprehensive research on several different types of natural disasters demonstrate that pregnant and postpartum women and their infants may be particularly vulnerable when experiencing such an event (Marshall et al., 2020). Furthermore, healthcare needs that are particularly relevant to women, which includes reproductive healthcare, are likely to be given lower priority in disaster situations (Harville et al., 2010). Disaster impacts maternal health and some perinatal health outcomes (Harville et al., 2010). Those that work in healthcare and disaster relief need to focus more on pregnant women and in particular with their mental wellbeing. Natural disasters can trigger both depression and anxiety and high rates of both of these mental health issues can be seen at high rates in pregnant women (Harville et al., 2010).

Maternal Morbidity in the United States

The high rates of maternal mortality in the United States, especially for women of color, is a source of great anxiety and mental stress for pregnant women. Rates of maternal mortality have been steadily increasing in the United States over the past several decades (Creanga et al., 2012). More specifically, the pregnancy-related mortality ratio has increased since 1987 from approximately 6 deaths per 100,000 live births per year to almost 18 deaths per 100,000 live births in 2009 (Creanga et al., 2012). During the same time, worldwide maternal mortality decreased in almost every other country (Creanga et al., 2012). It is also important to note that the United States spends more on healthcare per capita than any other country and its pregnant women still have disproportionately high negative outcomes (Lu, 2018). Some women in the United States are at a higher risk of dying from pregnancy related causes than others (Joseph et al., 2017). The mortality ratios are 3-4 times higher among Black women and for specific mortality causes such as ectopic pregnancy this gap is even larger (Lu, 2018). Except for foreign-born white women, all other race, ethnicity, and nativity groups were at a higher risk of dying from pregnancy-related causes than US born white women after adjusting for age differences (Joseph et al., 2017). Additionally, race, ethnicity, and nativity-related minority women make up 40.7% of all US live births but 61.8% of pregnancy related deaths from 1993 to 2006 (Creanga et

al., 2012). The pregnancy related mortality ratios were 9.1 and 7.5 deaths per 100,000 live births among US and foreign born white women, respectively and slightly higher than this is 9.6 and 11.6 deaths per 100,000 live births from US and foreign born Hispanic women, respectively (Creanga et al., 2012). Compared to US born white women, age standardized pregnancy related mortality ratios were 5.2 and 3.6 times higher among US and foreign born Black women respectively (Creanga et al., 2012). It is important to note that there have been several attempts to explain these pronounced disparities, but because of data source limitations, the conclusion often reached is that they are multifactorial and no single intervention is likely to reduce them (Joseph et al., 2017). Nonetheless, the fact that there is variability in the risk of death by race and other factors demonstrates that more should be done to understand and reduce pregnancy-related mortality.

Several steps are needed to reduce maternal morbidity and mortality in the United States. There needs to be a national call to seriously address maternal care and outcomes as well as multiple multidisciplinary actions taken in order to improve outcomes for pregnant women (Kilpatrick et al., 2015). The actions that need to be taken include increased communication and collaboration between all stake holders involved in perinatal health, creation of guidelines on the national level to address key maternal care areas, reviewing and analyzing all cases of severe maternal morbidity, increasing research efforts on maternal morbidity, making various forms of contraception easier to access, and bettering the education of obstetricians and gynecologists (Lu, 2018). Additionally, calling for meetings between several national organizations including the American College of Obstetrics and Gynecology, Society for Maternal Fetal Medicine, and American College of Nurse Midwives and for these organizations to further education on this issue need to be a part of efforts to reduce maternal morbidity (Kilpatrick et al., 2015). Due to the lack of a universal healthcare system in the United States, it is often difficult to obtain accurate information regarding maternal mortality and morbidity (Kilpatrick et al., 2015). There is also a heightened fear of medical legal risk which contributes to maternal mortality and morbidity (Lu, 2018). A substantial portion of severe maternal morbidity and mortality is preventable and so if the efforts they described are carried out, there should be a significant increase in improved outcomes for pregnant women (Kilpatrick et al., 2015).

Providing good quality of care and eliminating health disparities are important in preventing maternal deaths. There is often a lack of coordination of care among healthcare

providers caring for pregnant women with chronic disease, fragmentation, or substandard of care and beginning prenatal care late being some of the direct consequences of this reality (Wong & Kitsantas, 2020). There needs to be more research on the quality of maternal health care services from both the patient's and provider's perspectives to determine provider biases and to determine exactly what biases minority patients face during maternal care visits (Wong & Kitsantas, 2020).

COVID-19 and Pregnancy

Pregnant women and their fetuses were found to be a population that is at high-risk during the COVID-19 pandemic (Wastnedge et al., 2021). Pregnant women are known to be disproportionately affected by respiratory illnesses which are often associated with an increased infectious morbidity and high maternal mortality rates (Wastnedge et al., 2021). Researchers have found that there need to be safeguards to protect pregnant women and their fetuses in order to minimize cross-infection of healthcare providers while performing procedures that require close physical contact and promote droplet exposure, such as vaginal delivery (Mashraath et al., 2020). Furthermore, most of the obstetric management was based on consensus and best practice recommendations, as clinical efficacy data that relates to the antiviral therapies and corticosteroids used to combat COVID-19 are evolving (Mashraath et al., 2020). Therefore, an integrated framework must be used to provide an appropriate level of care for pregnant patients during the COVID-19 pandemic (Mashraath et al., 2020). The most common symptoms reported by pregnant women who test positive were fever, cough, shortness of breath, and diarrhea (Wastnedge et al., 2021). As far as birthing, neither vaginal delivery nor cesarean section conferred additional risks and there is little to no risk of vertical transmission to the fetus with either form of delivery (Mashraath et al., 2020). According to one article, the outcomes of 55 pregnant women infected with COVID-19 and 46 neonates have been reported in the literature but there is no definite evidence of vertical transmission (Ryan et al., 2020). The researchers do acknowledge that the true effects of COVID-19 will be evident over time especially when analyzing its effects on maternal and fetal morbidity and mortality (Ryan et al., 2020).

The few guidelines for pregnant women that were available during the early days of the COVID-19 pandemic were published by the American College of Obstetricians and Gynecologists. The current recommendations include that patients should avoid contact with ill people, avoid touching their face, cover coughs and sneezes, wash hands frequently, disinfect contaminated surfaces, and stay home when possible ("Novel Coronavirus 2019 (COVID-19,"

2021). Additional recommendations include that prenatal clinics make sure all pregnant people and their visitors are screened for fever and respiratory symptoms, and symptomatic women should be isolated from well women and required to wear a mask ("Novel Coronavirus 2019 (COVID-19)," 2021). There were still several unanswered questions regarding how to best safeguarded the health of pregnant people and their infants during this pandemic. One such question was whether or not pregnant healthcare workers should receive special consideration and another was whether or not infected mothers should be separated from their newborns ("Coronavirus and Women's Health Care: A Message for Patients," 2021). Additionally, there was limited data regarding whether or not COVID-19 can be transmitted via breast milk ("Coronavirus and Women's Health Care: A Message for Patients," 2021). The importance of continuing to research the impact of COVID-19 on pregnant people and making sure their care is of central importance is emphasized in the literature ("Coronavirus and Women's Health Care: A Message for Patients," 2021).

The impact of COVID-19 on maternal morbidity was studied within a small cohort of women in Brazil. Researchers identified 20 COVID-19 related maternal deaths with the ages of these individuals ranging from 20-43 years (Takemoto et al., 2020). COVID-19 symptoms onset was reported in medical documents as beginning during pregnancy for 12 cases, postpartum for 3 cases, and during the cesarean section for 1 case; there was missing data for the 4 other patients (Takemoto et al., 2020). There was at least one comorbidity or risk factor present in 11 cases and asthma was the most common risk factor (Takemoto et al., 2020). The researchers believe that the patients and data discussed in this paper made up the largest available series of maternal deaths due to COVID-19 (Takemoto et al., 2020). There were several factors that contributed to these maternal deaths including barriers to access healthcare, differences in pandemic containment measures, and high prevalence of concomitant risk factors for COVID-19 (Takemoto et al., 2020). Researchers also stated that it was likely the United States would face similar challenges in terms of caring for pregnant women during COVID-19 (Takemoto et al., 2020). They go on to point out that in the US there are marked barriers to access healthcare and worse maternal health indicator when compared to other countries in the same income range, even without taking into consideration the risk COVID-19 could pose (Takemoto et al., 2020). At the time this study was published, no COVID-19 related maternal deaths had been reported in the United States but there were maternal near miss cases documented (Takemoto et al., 2020).

Blogs, COVID-19, and Pregnancy

There was very little scientifically reviewed qualitative literature on COVID-19 and pregnant individuals, especially in regards to more narrative research. This was due to the novel nature of this information as well as a greater emphasis on quantitative research. However, several individuals who have given birth during the pandemic have taken to the internet to share their experiences in blog posts. I have summarized some of their stories below and took special care to include their genuine feelings and reactions during their labor and delivery journeys. For a more complete description of each of the stories, see Appendix A. This was by no means an exhaustive list of all the COVID-19 birth stories available online but it was a good sampling of the stories that were available.

One of the major themes seen in these blog posts was feelings of anxiety. Andrea Madril described in her blog feelings of anxiety surrounding giving birth and her interactions with medical professionals. She said that it was all too common that pregnant women were having to change their birth plans as hospitals instate new rules that limit visitors and doulas. Additionally, because there is uncertainty in regards to when the pandemic will end, there is a lot of uncertainty with what postpartum periods will look like with their new babies. She also described how breakdowns at her OBGYN appointment were frequent as she was overwhelmed with these feelings of uncertainty (Madril, 2021). Jill Howell was very stressed about the reality of having a child during a pandemic and so she tried to educate herself as much as possible about the difficulties she could possibly be facing giving birth ("Giving Birth during COVID-19: One Mother's Experience," 2021). Colleen Marie tried to plan out her birth as much as possible to give her some sense of security during this extremely uncertain time. She also tried to be as well informed as possible about the impact of COVID-19 and on the different guidelines at hospitals (Marie, 2021). María Sierra described feeling much less prepared for giving birth during a pandemic than she did with her first baby because of all that was unknown at the time. She gave birth in April of 2020 and she described feeling lonely, vulnerable, afraid, and not confident during this time due to COVID-19 (Sierra, 2021). Sarah described the experience of getting a COVID-19 test prior to being induced. She said the drive through testing center caused her a lot of anxiety as it was a very scary sight and made her think about the world in which her baby was being born into. In this vulnerable state, she ended up crying on the way home because of how unnerving this experience was ("Birth During the Pandemic," 2021).

Another major theme was the fact that the experiences of these women, from finding out they were pregnant to the postpartum period, was how different their experiences were from what they had expected as well as the fear this created. Andrea described the "dark cloud" that was surrounding her birthing experience because of the reality of COVID-19. She described her list of fears including her baby's health and wellbeing, the possibility of being separated from her baby if she contracted the virus, family and friends not being able to meet the baby for a while, and not having access to the same amount of support (Madril, 2021). Jill explained how different her prenatal appointments and birthing experience were from what she expected and experienced with her first child. She was not able to have her partner at any OB or ultrasound appointments and if possible many appointments were conducted remotely. When she went into labor and she and her wife arrived at the hospital they still tried to keep an open mind about the process. They were both given masks to wear during the duration of their stay and Jill was only allowed one visitor while staying at the hospital. Her wife was also asked to not leave the hospital campus more than once daily to help protect professionals within the hospital as well as other patients and visitors ("Giving Birth during COVID-19: One Mother's Experience," 2021). Because Colleen lives in New York, she had to deal with every changing guideline implemented by the hospital. She was giving birth to her first child and described how different the process looked from what she expected as well as how much her experience changed week by week. Initially, she thought she may not be able to have her partner present for the labor but a week before her due date she learned that the policy had changed and birth partners would be allowed to be present for delivery. They would have to have their temperatures taken, wear PPE, and leave once she was transferred to delivery but nonetheless it felt like a giant weight had been lifted. However, if she ever were to test positive for COVID-19, no visitors would be allowed to be in her birthing room. Unfortunately, Colleen and her partner both tested positive for COVID-19 when she arrived at the hospital after her water broke and so Colleen had to labor with a mask and her husband was on FaceTime during the delivery process (Marie, 2021). When María arrived at the hospital due to painful contractions, she went to triage but her husband was unable to come with her because of COVID-19 protocols. She ended up being in triage alone for over 90 minutes of painful contractions and during this period of time she felt incredibly isolated and scared as this was not something she was expecting to have to go through (Sierra, 2021). Sarah described how life after giving birth was very different due to COVID-19. She was not able to

have friends and family come and visit her in the hospital or after she brought her baby home. Not having this in-person support was particularly difficult as she was only able to connect with her parents virtually ("Birth During the Pandemic," 2021).

A few of the blog posts emphasized the importance of centering mental health. Andrea detailed that she almost felt it was "inappropriate" to be writing about the hardships she could face when people are dying and losing loved ones at this time. But she emphasized the importance of maintaining one's mental health and for her putting down her thoughts was therapeutic and could show other individuals experiencing similar emotions that they are not alone (Madril, 2021). María detailed the importance of keeping your support system close in whatever ways possible. She was also able to seek out and talk to a therapist during her pregnancy and postpartum experience which she says was instrumental in terms of coping with the reality surrounding COVID-19 and the many losses that came with it (Sierra, 2021). Sara recommended to other expecting women to seek out unique support systems during this time—reaching out to loved ones, mental health providers, and online communities of expectant and new parents ("Birth During the Pandemic," 2021).

Conclusion

The focus of my own research was on COVID-19 pandemic in the United States which has several differences from the other pandemics and epidemics that have occurred throughout history. However, looking at the impacts these public health events had on the experiences of pregnant individuals can provide a good framework as far as the work that needs to be done in order to better support this group of high risk individuals and their infants during such times. Pandemic preparedness activities should include special considerations for those who are pregnant and research on past pandemics has demonstrated what some of these provisions should look like. The impact of COVID-19 on pregnant individuals and on life in general is unprecedented, so in order to have greater context for the difficulties faced by this population of people it is important to analyze their experiences during natural disasters. Furthermore, people of color are a particular population experiencing higher rates of COVID-19 in their families and communities as well as several other negative effects of the pandemic. Because of the varying experiences people have as a direct result of the systemic racism and racial bias that exists in healthcare, it is important for research done in regards to pregnant people to include the experiences of individuals from diverse racial backgrounds. Recognizing this is especially

important in conducting research in the time of COVID-19 as centralizing their stories is key to not only raise awareness but working towards dismantling the systems that allow these disparities to be an unfortunate reality for many. Overall, there was very limited research currently published in regards to COVID-19 and the impact it has on pregnancy for women of all backgrounds. This demonstrates the importance of conducting such research in order to answer vital questions and work towards creating better outcomes. Additionally, the little research that has been conducted has all been quantitative so adding a narrative, qualitative angle to the existing literature will be beneficial in terms of working towards filling in the gaps of knowledge and understanding. The detailed birth stories provided in blogs demonstrated the fact that giving birth during COVID-19 is an abnormal experience and each of these individuals dealt with their own positives and negatives. Some of the commonalities throughout were feelings of uncertainty and stress about all the unknowns, having to fight to have a partner with them during delivery, and wanting to share their personal journeys to connect with and reassure others. The literature included above clearly had several implications for this thesis, especially in determining how I conducted my research.

Methods

Interviews

I conducted 11 semi-structured interviews in November 2020 through February of 2021. I recruited interviewees who were either still pregnant at the time of their interview or had given birth after early March 2020 during the COVID-19 pandemic. I recruited these women by posting a flyer on various Facebook groups and through asking mutual contacts if they knew any pregnant women or women who had recently had a child who might be willing to share their story. These were the only parameters as I wanted to include as to ensure that I would have women from different backgrounds and with a wide diversity of experiences. Furthermore, I did not place any limitations on the number of participants overall or from a particular background; I interviewed every woman who reached out to me throughout the recruitment process. I made sure potential participants knew that I would be asking them to participate in an interview that would last from 30 minutes to an hour and that I had undergone the IRB approval process for my research. The women then got in contact with me via email written on the flyer or over text and we set up a time to have a virtual interview using the Zoom video conferencing platform. Having virtual interviews was the safest policy for all involved parties given the reality of conducting research during the COVID-19 pandemic. Per my IRB application (HUM00185085), I was exempt from having the women I interviewed complete any consent forms as I did not collect any identifying information. I recorded every interview and had the video conferencing platform automatically transcribe each interview. It then sent the recordings straight to my email upon completion of the interview.

I used a consistent script for every interview for continuity of information and to ensure that I had every interviewee give an answer to key questions. However, I also allowed for the women I interviewed to share as much or as little as they wanted and often times simply by sharing their experiences, they answered all the questions I had for the purposes of my research. I wanted to make the interview more conversational in nature and to also allow the women I interviewed to share their story in the way they wanted. This intention was carried out through asking broad questions that were thoughtfully formatted. The blogs incorporated into my Literature Review helped to form the basis of my interview questions because I was able to get a general understanding of what pregnant women experienced during COVID-19 and created questions that would allow for women to share their stories. As far as the specific questions

asked, the initial inquiries were in regards to their pronouns, age, gravidity and parity[2], and due date. I then asked the women I interviewed to share their prenatal experiences, in addition to their birth stories and postpartum experiences if they already gave birth. For a more complete list of the questions, please see Appendix B.

Compiling Interview Responses and Data

After each interview was completed, the Zoom video conferencing platform sent me the recording and transcription. I uploaded these to MBox, a secure platform, for storage until I completed compiling the important information and then I would delete them for privacy and ethical purposes. In my efforts to collect the important aspects of each interview, I made sure to write down the responses to each of the short, contextual questions in a collective table for easy summary in my analysis. Then, I compiled the main points of their prenatal and postpartum care as well as their birth story or birth plan as was appropriate in a summary. I also included the key quotes and unique experiences of each interviewee in these summaries as well as any background or context they provided. I made sure throughout this process that I was preserving the unique and moving testimonies of each woman and not modifying their overall story or message in any way. I did this by making sure to draw directly from quotes and including direct quotes in my summaries that preserved the voice of the storyteller.

Narrative Feminist Analysis

The type of analysis I engaged in, narrative feminist analysis, must be embedded within relevant historical, structural, and ideological contexts as well as social discourses and power dynamics. Stories can be used to both make sense of things that have occurred and to also call attention to societal issues, ultimately leading to taking social action. The double-hermeneutic narrative analysis I engaged in specifically involves exploring stories as they are told in order to understand both the individual's experience and the collective's experiences as well as to understand the roles of various forces and societal conditions that played a role in the storyteller's experiences (Pitre et al., 2013). Furthermore, I also wanted to illuminate the sources and dynamics of oppression, discrimination, marginalization, and stigmatization as well as the healthcare disparities that shaped the stories.

[2] Gravidity is the number of times a woman has been pregnant while parity is the number of times a woman has given birth.

This particular type of analysis is a "double process of translation or interpretation" that includes a few primary assumptions (Pitre et al., 2013). These assumptions are as follows: "(a) social actors and narrative truth (hermeneutics of faith), (b) the stored space and space (hermeneutics of contextualization), and (c) narratively and the social action of stories (voice toward change)" (Pitre et al., 2013). Hermeneutics of faith states that research participants are the experts of their own personal, embodied experiences. Social actors are the storytellers who are "intentional, interpretive, reflexive, and moral human agents within their personal and collective space" and the experts in their own lives (Pitre et al., 2013). Within narrative truth, we then regard stories as they are told as "authentic representations of narrator' beliefs, thoughts, emotions, intentions, choices, and actions" (Pitre et al., 2013). Hermeneutics of contextualization states that examine the forces and conditions that impact the experiences of the narrator with the overall objective of "focusing on the setting or stored space surrounding and also embedded within the space of the social actors' reality and made visible through the stories they have told" (Pitre et al., 2013). The storied space is a place that "comes into being by being actively connected to human beings… where people are positioned in the actions of others and also actively position themselves" (Pitre et al., 2013). Within this space, researchers are able to situate the choices of the storyteller in the context of symbolic, structural, and ideological worlds. Furthermore, the stories must be documented using the voice of the storyteller and their voice should be a "means to raise individual and social conscious and an opportunity for the personal to become political" (Pitre et al., 2013). The feminist aspect of this type of analysis allowed me to center the reading and analyzing of these stories to the intersecting influences that create health inequities, such as gender and race, and limit agency.

There are several theoretical underpinnings to the double-hermeneutic narrative analysis. These underpinnings are triangular and include the ability of researchers to "(a) identify sources of power and alienation, (b) recognize expressions of resistance and emancipation, and (c) underscore invisible, silence, or taken-for granted historical, structural, and ideological forces and conditions" (Pitre et al., 2013). This type of analysis also allowed me to explore the agency and voice of those I interviewed and to include a sociological, contextual perspective. Double-hermeneutic narrative analysis was created to "give voice to traditionally silenced, marginalized, or vulnerable populations and to examine the elicited stories in light of the multiple forces and conditions fostering oppression, marginalization, and stigmatization" (Pitre et al., 2013).

Findings

At the conclusion of the interviews, I took the answers to the preliminary questions in regards to pronouns, age, gravidity and parity, and ethnicity and complied the data. This information formed the foundation for my analysis and also provided context for the interviews. The few quantitative data points that I collected are described below and summarized in Table 1.

All of the individuals I interviewed used she/her pronouns and identified as women. They described their experiences being pregnant during COVID-19. For 45% (5 out of 11) of the women it was the first pregnancy, for 27% (3 out of 11) it was their second, for 9% (1 out of 11) it was their third, for 9% (1 out of 11) it was their fourth, and for 9% (1 out of 11) it was the fifth. Seven out of the eleven women self-identified as white, one woman self-identified as African American, one woman self-identified as Hispanic, one woman self-identified as Filipino, and one woman self-identified as Pakistani. The women ranged in age from 25 to 40 at the time of the interviews. Out of the eleven women I interviewed, three were currently pregnant and eight had given birth. Of the eight women who had given birth one had a home birth and seven gave birth in a hospital setting. All of the women resided in the southeastern Michigan area. Every single woman said that COVID-19 in some way or another impacted their pregnancy, birthing experience, and postpartum period.

Table 1. Participants' Demographic Information

Interviewee	Age	Due Date	Gravidity	Parity	Race/Ethnicity
I	40	March, 2020	3	3	white
II	25	April, 2020	4	3	African-American
III	31	January, 2021	1	0[3]	white
IV	25	March, 2020	1	1	white
V	38	December, 2020	1	1	Hispanic
VI	32	November, 2020	2	2	white
VII	29	November, 2020	2	2	white
VIII	33	February, 2021	5	1[4]	Filipino
IX	36	April, 2021	1	0[5]	Pakistani
X	32	June, 2020	1	1	white
XI	31	August, 2020	2	2	white

[3] Interviewee III had not yet given birth at the time of the interview
[4] Interviewee VIII had not yet given birth at the time of the interview
[5] Interviewee IX had not yet given birth at the time of the interview

Discussion

Introduction

These individual and emotional stories collected in the interviews were unique to each woman and her life experiences. However, there were several patterns that emerged from their storytelling. These themes illuminate the common challenges pregnant women dealt with during the COVID-19 pandemic and the ways in which they dealt with such challenges. It is significant that there were so many commonalities as far as the hardships faced by women documented in these interviews, demonstrating how the medical system needs to do more to support pregnant women in general and especially during devastating periods in time, such as a pandemic. I used specific details from their narratives as well as direct quotes in this discussion in order to emphasize these themes and to remain true to the voice of the storytellers. In order to refer to each individual I interviewed, I used interviewee I, II, III, and so on in the order in which they were interviewed. The summaries collected that present a more detailed look at each individual's story can be found in Appendix C. A double-hermeneutic narrative feminist analysis framework was used in order to look into and describe these themes.

Emerging Themes

Loneliness and Isolation

All of the women interviewed described feelings of loneliness, and made direct connections to these feelings and the COVID-19 pandemic. A sentiment shared by all of the women was that although they recognize that motherhood within the context of today's society can often be a lonely endeavor, the COVID-19 pandemic made it even more so.

During their pregnancies, women were unable to have their partners or family members present at their various prenatal appointments. This was especially devastating for several first-time mothers who viewed these appointments as special moments for them to share with their partners and family. Often times, all that they were able to share with those closest to them were the photos or recordings of the visits. Interviewee X described her prenatal appointments which occurred in the spring and early summer of 2020:

> "That was really difficult and hard, having to go alone. I was really fortunate that at least my ob-gyn was really kind and considerate. They always made sure that they printed off photos so I could bring them home for my husband and my ob-gyn let me record the heartbeat so he could hear that too. Before all this, most

> times if a dad wanted to be there, they were able to come. And so that was very unfortunate."

A few women also described feeling scared going into their appointments alone. In particular the anatomy scan, that occurs at around 20 weeks, was especially daunting because of how monumental and significant this appointment is in terms of the health of the pregnancy. Interviewee XI who gave birth to her second baby at the end of the summer described her experience at the anatomy scan:

> "The anatomy scan is like the most exciting appointment in your pregnancy. You get to find out what you're having if you want, you get to see the baby—it looks like a baby—and I wanted my daughter to come too. The night before they call us and said that I was no longer able to bring any visitors to the appointment, that I had to go by myself. And I just started bawling, I was like, 'I won't want to do this by myself.' I work in healthcare, I work in labor and delivery. I know what it is going to be like. But I didn't want to go by myself and that was really upsetting."

Women also did not have the in-person support that many planed on seeking out through birthing classes that were now virtual, which often resulted in feelings of a lack of community. Many women reflected on how they would have had a network of expectant mothers and their families if they would have been able to partake in birthing classes as well as new mom groups, after giving birth. Because of the pandemic and in-person classes and groups were no longer meeting, many women described feeling unsure of themselves and lonely throughout their pregnancy.

During the birthing process, many women did not have as many people present as they would have wanted or envisioned having before COVID-19. Most women were only able to have their partner and their doula present during the birth and many commented on how it was a lonely experience, as opposed to the joyous and family oriented event they envisioned it to be. Interviewee VII described her time in triage prior to delivering her second baby were her partner was not able to join her:

> "I promised myself this time around, I would advocate for myself more. But it was hard to do that without my husband because I was in so much pain. I knew I needed to and wanted to stay. I have a very high pain tolerance and I was in a lot of pain. With COVID-19 restrictions, it made it really difficult and kind of scary

> to be back there by yourself in so much pain and not having your support system there with you."

Additionally, a few women described how hospital staff behaved differently and how practitioners were more hesitant to get close to and comfort patients because of COVID-19 concerns, which made their birthing experiences more isolating. Interviewee III who works as a midwife described hearing this sentiment from other pregnant women:

> "I have had patients tell me that they feel like they are being treated differently by nursing staff and by us. It is because people are scared of the virus and so they are less likely to make physical contact with the patient as they otherwise might have. They spend less time in the room than they otherwise might have. Then there's also definitely this changing demeanor and how they treat the patient based on whether or not they are COVID-19 positive."

After giving birth, women described how they often had little to no help carrying for their newborns due to concerns surrounding COVID-19. Normally, these women would have been able to seek out the help of friends and family but this was not possible for many because of health concerns relating to the pandemic. Additionally, many women discussed how those closest to them had not yet met their newborns, or how very few were able to and only for a short period of time. This was extremely difficult due to the different expectations many had. Overall, women felt very isolated and separated from those closest to them during a period of time when they wanted family and friends to be centered. This is what interviewee X said about her experience with loneliness as a first-time mom during COVID-19:

> "I wasn't around other moms; my child was not around other babies. I constantly thought, 'Is this normal? Am I doing this right? Am I doing this wrong?' I really didn't know and so it was really hard in the beginning. I was also very lonely. Being a first-time mom no one really prepares you for how lonely it is, but then, on top of it all there was a pandemic and the isolation associated with that. It's extraordinarily lonely. I ended up going to therapy because of how I was feeling. We tried to get pregnant for two years and I had all these expectations of what it was going to be like being pregnant and what it was going to be like being a mom. And COVID-19 kind of stole all of that from me. I didn't get to have a baby shower, I didn't get to have my mom visit me after I gave birth, I didn't get to have my friends come over and meet the baby. No one other than myself, my mom, my husband, and my sister have held my baby."

Interviewee VI gave birth to her second baby in the fall of 2020 and said this about her postpartum experience:

> "Once we got home, we haven't had any visitors and don't have a ton of extra help. My mom was her for a while, but it's just not the same. It is a lot more isolating for sure, not being able to have friends over and not going to different places."

Loss and Grief

Several of the women dealt with loss in their personal lives while they were pregnant, whether directly related to COVID-19 or not. Two women described losing loved ones while pregnant, one due to COVID-19 and one unrelated. Several other women described dealing with a family member who was sick due to COVID-19 and the emotional hardships this caused. This grief was compounded by the reality of not being able to seek comfort with family and friends or say final goodbyes due to the pandemic. Interviewee IX was experiencing great loss unrelated to COVID-19 during this time:

> "I planned this pregnancy because my mother was very sick and I kind of though, that the baby would help keep her alive. I wasn't so sure I wanted kids but she really wanted to be a grandma and then I found out I was pregnant a month after she died. So that was very bittersweet for me. I say the baby saved my life because I can't drink my problems away, I have to eat healthy. I own my own business and so I have to really work hard to get things ready for the baby. So, it has been very emotional. My doctor was actually concerned that I was depressed but I was like 'I run a business during COVID-19 and my mom died, how could I not be depressed?' I have started therapy which has been helpful."

Interviewee V lost her uncle to COVID-19 and also dealt with both of her parents battling the infection while she was pregnant. She talked about how much she wished her family were able to be with her for her pregnancy and birthing experience:

> "It would have been ideal if my mother could have been here with me. Unfortunately, she couldn't be because of travel and distance and even if she had been here, she wouldn't have been able to come to the hospital. Both of my parents had COVID-19 and my dad was in the hospital for 14 days because of it. My mom fortunately did not have as bad of symptoms but she was not doing well and was still in the recovery process. I also experienced significant losses during my pregnancy including our dog and one of my uncles because of COVID-19.

> So, I think that I wish I would have taken a little bit more time maybe talking with a counselor about some of that loss. It definitely played a part during my labor because there were so many times I wanted to cry during my labor. But I was so exhausted, it didn't happen. After about a week later I ended up having to go to the doctor because I was experiencing some issues and I actually ended up crying in the office. It just wasn't an ideal situation. My sister had her kids and the family all got to be there. For my child, he's over a month old and nobody in our family has seen him and friends have only come to see the baby through the window. My husband is amazing, I'm so grateful to have him, but there is nothing like female companionship—who can say that they've gone through it and know what you are doing through and can give you that support."

Another form of loss that was experienced by all of the women I interviewed was the loss of the pregnancy and birthing experience they wanted or expected. This was true for the women who were giving birth to their first child as well as those who were giving birth to their third child. For the women who were giving birth to their first child, they described feelings of uncertainty as they were constantly second guessing their choices and felt unsure of where to turn when they needed advice. For the women who were giving birth to their second, third, or fourth child, they were all upset by the fact that their experience was unlike the ones they had before. Interviewee VII is a licensed psychologist who in addition to being pregnant during COVID-19 was seeing patients who were also pregnant. She said this about their shared experiences:

> "Something that I know impacted me and lots of other women, based on what I hear in my therapy practice, is the grief and loss of a normal pregnancy experience. Because I was not seeing a lot of people, I felt like a lot of people forgot that I was even pregnant. There was no baby shower and it just didn't feel like it was a celebrated experience. Also, it feels really stressful to have people come over and deciding what people you want to be around your baby because you don't really have control over what that other person is doing. I feel very cautious about that and, therefore, it's kind of felt like social support has been lacking in that regard. People call and people text and we did try and do some things socially distanced outdoors. But overall, having a baby during a pandemic is pretty isolating. There are mom groups that are meeting virtually but it just does not seem as personal or supportive as it could be if it were in person."

Anxiety and Fear

For several reasons including lack of resources and support, several women experienced great levels of stress while pregnant. Furthermore, five out of the eleven women described seeking out therapy and mental healthcare in order to help them cope and deal with their stress. This anxiety escalated when COVID-19 began because of the amount of uncertainty circulating in the world at the time and specifically the uncertainty related to their pregnancies. Several of the women were also dealing with chronic mental health issues as well as family problems outside of COVID-19. Interviewee VIII who was pregnant at the time of the interview, described feeling very anxious when she found out she was pregnant which she said could have been due to due hormones or the pandemic in addition to grief from the two miscarriages she recently suffered:

> "The isolation and loneliness is really hard especially in the beginning of my pregnancy. I am really thankful for my therapist because going has helped me to kind of gain perspective and just to be able to talk to somebody. She had diagnosed me with perinatal mood and anxiety disorder, and it just helps to know what you are going through because then I could feel like there was something I could do about it. It never got to the point where I needed medication but I was seeing my therapist via Zoom every few weeks. Now I am committed to it and will be making appointments even after baby just to check in because I in the past I would not go to therapy until it got really bad and so I want to prevent that from happening."

Several women also described feeling very fearful during their pregnancies and after giving birth. Some said that the pandemic added an extra layer of fear on top of what already existed for many. Interviewee I who gave birth at the very beginning of the pandemic in early spring said this about her decision to go to the hospital after her water broke:

> "I remember thinking, in my mind, I'm going into a place where there is a potential for exposure to this unknown, this new novel virus, and how then I could bring that home to my children and you know it's a little terrifying. So, of course, knowing what we knew at that time I was sanitizing my hands constantly, wiping everything down around me, trying to be as cautious as possible."

Mistreatment

One woman described her unjust experience having been mistreated by the hospital system and staff. She dealt with several health complications in addition to blatant mistreatment and dehumanization. Interviewee II said this about her experience:

> "I don't think they handled the situation well. I was not treated fairly. Everything was robbed from me. I know that there are certain precautions you have to take but it was all just very poorly handled."

She was not feeling well about a month before her due date and was advised by her doctor to go to the hospital. When she arrived at the hospital, she was tested for COVID-19 twice and both came back negative. She had to stay overnight to receive IV fluids and that morning she was told that she had to be induced and her baby would be delivered via C section. This came as a complete shock because she was supposed to give birth in a birthing center and paid out of pocket for that experience. Additionally, all of her other children had been born naturally. She said this about her thoughts at this moment and her birthing experience:

> "They did not give my any options. They did not provide me with enough information. I told them, 'Well, at least can I call my mom?' I needed to call someone because what if something goes wrong? My doctor then told her that she would call her but I wanted to call her myself. And so, I FaceTimed my mom and then my doctor talked to her. Afterwards, my mom told me that my doctor said that I had COVID-19 but no one had ever told me that. And that fact is confirmed because I was not told that I had COVID-19 until I was discharged when a doctor called me and said, 'Hey, we got your positive results.' Anyways, so we get to the operating room and they told me about my pain medication options. I asked, 'Can I at least see his face?' But nothing was done. They gave me the medicine, and told me what I should expect to feel during the procedure. After they finished with the surgery, I heard him cry and the door close. That was it. I was not allowed to visit him. I was not allowed to see him until more than a week after he was born. The only reason I was allowed to see him then was because I was advocating for myself as well as others, such as my doula and other midwives. After the C section, they took me to the cardiac ward because I had lost so much blood and needed a blood transfusion. My blood transfusion did not go well at all. My whole arm was purple and black for three days. When I woke up, there was blood all over my bed. And because I was on the cardiac

> floor, I did not have access to the regular room service and breakfast, lunch, and dinner. They just walk in with meals and medicine, without even telling me what medicines they are giving me. I wondered, 'should I be taking all of these at once'? Because one type of medication can affect the other but they don't expect you to know that much, especially considering the fact that I am young and African American, they don't expect me to know what I know. I went to school to be a medical assistant and so I'm not just oblivious to things. It is just hard to try and fight and advocate for yourself when you have just had a baby. I am the patient here, and so I would expect to be able to trust hospital staff and that they would have my best interests at heart."

She was also not informed about the whereabouts of her baby or their health. When she was able to see them, it was over a week after she had given birth in the empty Starbucks of the hospital with four security guards present. She was not even able to touch him. When she was discharged from the hospital, her baby was still in the NICU. The only time she was able to see him was via scheduled Zoom calls. When she was finally able to take her baby home, she had to wait a while in order to receive his medical supplies, was learning about how to care for a preemie, and was also healing herself from a C section. She also said this about her postpartum experience:

> "To this day, I have still not seen my positive COVID-19 result and I have requested my medical records twice, as well as my sons. They legally have 30 days to respond, to tell me whether or not they are going to send them. But again, they don't expect me to know that either. They took over 30 days to respond and even longer to send his results. I also did not sign his birth certificate. I was discharged and so someone asked me all of his information over the phone and then drove to my house and I signed the birth certificate on the porch. So that is how they treat mothers during COVID-19. I am not sure that this is everyone's experience, but it was mine and it was awful. I feel like if the color of my skin was different, a lot of things would have been handled differently and I would have received better care. They would have probably at least have consulted with me and they didn't consult be about anything. It was like I didn't have any rights anymore because of COVID-19. The fact that he was born and they just took him and took me off the entire labor and delivery floor itself is just traumatic."

It is important to center the experiences of this woman and to frame her experience within the context of systemic racism present in the healthcare system. The experience of

interviewee II was may have occurred during a unique time in history but the mistreatment of pregnant Black women is not unique but rather a recurring symptom of a systemic issue that needs to be addressed.

Lack of Resources and Information

All of the women I interviewed described the lack of information regarding COVID-19 and pregnancy as a great concern. The little information that did exist was changing often, as were the guidelines for the various health care facilities from which they were receiving care. Interviewee III said this about her experiences being a midwife during the COVID-19 pandemic, illustrating the difficulties she faced and the shifting guidelines:

> "It's definitely been a challenge. Our office offers virtual visits for anyone who feels more comfortable doing it that way or anyone who has been exposed to the virus. The majority of our patients are wanting to come to the office, which we are fine with just so long as they are not ill and have not recently been exposed. And we have limited the amount of other people that can come with them. Right now, we are only asking one other support person and they can only come for shorter visits. For longer visits, we are asking that just the mom come. The hospital has been kind of all over the place. Everyone gets tested for the virus when they come in and are in labor, which has been a sore spot for some people and other people don't mind as much. We have had a lot of asymptomatic patients test positive, which is a little scary, especially because that means that I have probably been exposed."

Interviewee I gave birth fairly soon after the first COVID-19 cases were identified in early March. Therefore, she had to deal with there not being much know about the virus and took this into consideration:

> "The alarm bells obviously went high for my husband and I and we were quite concerned about what this meant. We are fairly level headed and calm people and so what I tend to do is research. If I am feeling uncertain about something, I want to know as much as I can about that something. With my kids, I have always read a lot of literature and this helped me to feel calm and centered. And so, when something out of left field arrived, I thought, 'Okay, what do we know about the situation and how best I can handle this?' However, not much was known. At the time, everyone was saying that COVID-19 was transferred probably by contact they didn't yet know it was airborne. So, there were really

> no mask mandates yet. I remember I was texting my doulas… and I really wanted to get an understanding of how it might go down at the hospital. I wanted to assure myself as to what that day would look like and try to control as much as I possibly could, knowing that there'll be a lot of external factors that one can't control."

Future Healthcare Interventions

These recurring themes illustrate that there are structural changes that can be made to better support pregnant women always, but especially during extraordinary periods of time such as natural disasters and pandemics. The stories told by pregnant women during COVID-19 illuminate the aspects of the healthcare system which should be changed or added to in order to better assist and improve outcomes for pregnant women of all backgrounds. These needed changes include centering the experiences of pregnant women in research, increasing access to mental health resources, improving patient advocacy, and hearing out and acting on the concerns of patients.

At the time that most of the women I interviewed were pregnant, there was very little information available in regards to pregnant women and COVID-19. Those I interviewed described their frustration that there was so little research available to them which often led to feelings of uncertainty and isolation. Therefore, research should center the pregnant population from the emergence of a novel disease or the onset of a natural disaster and make it accessible, ensuring that all pregnant women have access to this information. This research should also be conducted in a way that allows for the inclusion of diverse experiences and centers unique and varied perspectives of those experiencing hardships. These voices should be sought out and included and their stories told recognizing the broader context of systemic issues. Doing so, allows for greater visibility of these issues and ultimately will aid in addressing them. Furthermore, these stories should be told simply for the sake of telling truthful, humanizing stories and to work towards bettering outcomes, as well as letting women know they are not alone in their experiences.

The ability to access mental healthcare was emphasized as something essential to coping during the prenatal and postpartum period in the interviews I conducted. Having a therapist to talk to about their concerns, life experiences, and interpersonal relationships was a vital part of healthcare they received. It gave them an outlet for their feelings, an individual who could

support them during a difficult time, as well as someone who could provide them with resources and reassurance. Many women were able to seek out therapy throughout their pregnancy and emphasized how much that helped them cope with loneliness and other hardships as well as provided an essential form of self-care. The pregnant women who did not have access to a therapist told me that this was definitely something that they felt could have been very helpful throughout their pregnancy and afterwards. Mental health care needs to be prioritized at every stage of maternal healthcare as it is both something highly valued by patients and was shown in my research to be very important in reducing feelings of anxiety and isolation.

Patient advocacy was lacking from the experiences of several women and many of their experiences would have been improved if it was included. It is vital that pregnant women feel as if they are supported by and can trust their medical team in order for them to have a maternal healthcare experience that is as positive and holistic as possible. Patient advocacy means that the voices of patients are uplifted and reflected in the actions of healthcare providers as what the patient wants and their best interests are centered in every medical decision. The women I interviewed who felt as if part of their experience was mishandled or they were treated poorly by medical staff stated that patient advocacy could have been an important part in ensuring that these things did not happen to them. Ideally, including patient advocacy in maternal healthcare would improve outcomes and allow for the voices of women to be uplifted.

Limitations

There are a few constraints to my findings and the breadth of my research. This includes the narrow geographic range, the inclusion of only a few experiences of women of color, and the small sample size. All of the women interviewed were from and gave birth in the southeastern Michigan area. It would be very beneficial for future studies to focus on a broader geographical area as geographic location and the resulting resources available could have greatly impacted pregnant women's experiences. Additionally, seven out of the eleven women interviewed self-identified as white. Future research conducted on this subject should center the stories of more women of color in order to recognize, document, and ultimately change the systemic healthcare inequities and blatant racism often faced by women of color. The fact that I was only able to interview eleven women has its limitations as well. A study that included a larger number of women could provide a more complete, broad picture of the experiences of pregnant women during COVID-19.

Furthermore, the experience of a woman who gave birth in June of 2021 differed greatly from that of a woman who gave birth in February of 2021. This is because there were clearer guidelines for healthcare professionals and more research conducted on COVID-19 and pregnancy in February of 2021. The vast majority of the research forming the basis of this thesis documented the experienced of women who were pregnant and gave birth in 2020. Research that analyzed the experiences of pregnant women during the COVID-19 pandemic in 2021, and perhaps comparing them to those of pregnant women during 2020, would be useful in filling in this gap.

Conclusion

This thesis illustrates the significant need to better support and listen to pregnant women, especially during challenging times in history. Pregnant women often represent a population that is particularly vulnerable to worsened physical and mental health outcomes in the wake of natural disasters and public health catastrophes. Yet, this group of individuals is not always provided with the resources, care, or information needed to get through these periods of time. I demonstrated, through the analysis of the interviews I conducted of women who were pregnant during the COVID-19 pandemic, several specific aspects of maternal healthcare that should be addressed or improved in order to address many of the concerns of pregnant women and failings of the healthcare system.

My findings and themes were very similar to those seen in qualitative literature documenting pregnant women's experiences during past pandemics and natural disasters as well as the blog posts documenting pregnant women's experiences during COVID-19. Feelings of anxiety, loneliness, loss, and uncertainty were not unique to the women I interviewed but were instead reflected in all of these stories of pregnant women. This demonstrates a real need for change in maternal healthcare and the various forms of support that are provided to, or lacking completely, from pregnant women during extraordinary periods of time. This includes, but is not limited to, increasing research that centers the experiences of pregnant women, increasing equitable access to mental healthcare throughout pregnancy and the postpartum period, and ensuring that patent advocacy is included in every step of their care. These steps towards creating a more supportive and positive experience for pregnant women were illuminated by the stories I collected as they were mentioned by the women as either something they found to be fundamentally helpful or something they felt was lacking. This demonstrates the great importance of including the voices of patients when working towards improving outcomes and the broader healthcare system.

Since I began the research process, there have been several articles and studies on pregnancy and COVID-19. This is very hopeful as it means that women who are currently pregnant will have access to more information, as many of the women I interviewed expressed how the lack of research contributed to their feelings of uncertainty and fear. Additionally, this research supports many of my own findings and themes, further emphasizing the need to address these issues in maternal healthcare. Pregnant women were found to experience significantly

elevated rates of postpartum depression and anxiety during the COVID-19 pandemic as compared to historical norms (Tomfohr-Madsen et al., 2021). It is important that women have access to screening for depression and anxiety in pregnancy as well as offered their preferred treatment method, either pharmacological or psychological, that is accessible remotely (Tomfohr-Madsen et al., 2021). There was also a qualitative research study conducted that demonstrated pregnant women felt disconnected from their social support system, had difficulty handling work-life balance, and experienced feelings of stress during COVID-19 (DeYoung et al., 2021). The pregnant women interviewed described feeling distress due to isolation, conflicting information about pregnancy and birthing and COVID-19, and stress on their families associated with the pandemic (DeYoung et al., 2021). These women also found various forms of self-care, such as walking or hiking, and seeking out mental health therapy to be helpful in coping during this time (DeYoung et al., 2021). Additionally, research demonstrates the importance of pregnant women wearing face masks and practicing personal hygiene as essential protective measures (Crovetto et al., 2021). It is also recommended that providers give patients the options to access care remotely including online consultations, telemedicine, and remote fetal heart monitoring and encourage pregnant women to keep their appointments (Crovetto et al., 2021). The specific ways for pregnant women to protect themselves in hospitals have been explained in detail by researchers as well (Crovetto et al., 2021). This includes wearing a mask when not laboring and when surrounded by people who are not in the same household in addition to trying to keep the hospital stay to a minimum (Crovetto et al., 2021). However, there are still existing gaps in the literature, such as long-term cohort studies about pregnant women who have recovered from COVID-19 and studies that examine experiences of pregnant women of color during the pandemic, and it is vital that researchers continue to center the experiences of pregnant women in their continued efforts to uncover more information.

The experiences of pregnant women during COVID-19 should be made visible and used to hold the healthcare system to account in terms of better supporting and informing this population. Their stories of resilience in the face of unprecedented uncertainty illustrate the changes needed to improve outcomes for all pregnant women.

References

Adichie, C. (2009). *Transcript of "The danger of a single story"*. TED Talks. https://www.ted.com/talks/chimamanda_ngozi_adichie_the_danger_of_a_single_story/transcript?language=en

Badakhsh, R., Harville, E., & Banerjee, B. (2010). The childbearing experience during a natural disaster. *Journal of obstetric, gynecologic, and neonatal nursing: JOGNN*, *39*(4), 489–497. https://doi.org/10.1111/j.1552-6909.2010.01160.x

Bebell, L. M., Oduyebo, T., & Riley, L. E. (2017). Ebola virus disease and pregnancy: A review of the current knowledge of Ebola virus pathogenesis, maternal, and neonatal outcomes. *Birth defects research*, *109*(5), 353–362. https://doi.org/10.1002/bdra.23558

Beckerman, K. P.. (2010). Pregnancy and Pandemic Disease, *Clinical Infectious Diseases*, ciaa741, https://doi-org.proxy.lib.umich.edu/10.1093/cid/ciaa741

Bediako, P. T., BeLue, R., & Hillemeier, M. M. (2015). A Comparison of Birth Outcomes Among Black, Hispanic, and Black Hispanic Women. *Journal of racial and ethnic health disparities*, *2*(4), 573–582. https://doi.org/10.1007/s40615-015-0110-2

Birth During the Pandemic — Expecting and Empowered. (2021). Expecting and Empowered. Retrieved 8 March 2021, from https://www.expectingandempowered.com/blog/2020/7/18/birth-during-covid-19-pandemic

Birth story - Isabel and baby Zoey — The Positive Birth Company. (2021). The Positive Birth Company. Retrieved 8 March 2021, from https://thepositivebirthcompany.co.uk/blog/birth-story-isabel-and-baby-zoey?rq=isabel

Buzic, I., & Giuffra, V. (2020). The paleopathological evidence on the origins of human tuberculosis: a review. *Journal of preventive medicine and hygiene*, *61*(1 Suppl 1), E3–E8. https://doi.org/10.15167/2421-4248/jpmh2020.61.1s1.1379

Callaghan, W. M., Creanga, A. A., & Jamieson, D. J. (2015). Pregnancy-Related Mortality Resulting From Influenza in the United States During the 2009-2010 Pandemic. *Obstetrics and gynecology*, *126*(3), 486–490. https://doi.org/10.1097/AOG.0000000000000996

Callaghan, W., Rasmussen, S., Jamieson, D., Ventura, S., Farr, S., & Sutton, P. et al. (2007). Health Concerns of Women and Infants in Times of Natural Disasters: Lessons Learned

from Hurricane Katrina. *Maternal And Child Health Journal*, *11*(4), 307-311. https://doi.org/10.1007/s10995-007-0177-4

Care for Pregnant People. (2021). Centers for Disease Control and Prevention. Retrieved 7 March 2021, from https://www.cdc.gov/coronavirus/2019-ncov/hcp/inpatient-obstetric-healthcare-guidance.html

Coronavirus (COVID-19) and Women's Health Care: A Message for Patients. (2021). ACOG. Retrieved 8 March 2021, from https://www.acog.org/womens-health/faqs/coronavirus-covid-19-and-womens-health-care

Coronavirus Disease 2019 (COVID-19) – Symptoms. (2021). Centers for Disease Control and Prevention. Retrieved 7 March 2021, from https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

COVID Data Tracker. (2021). Centers for Disease Control and Prevention. Retrieved 15 March 2021, from https://covid.cdc.gov/covid-data-tracker/#datatracker-home

COVID-19 and Your Health: Pregnant People. (2021). Centers for Disease Control and Prevention. Retrieved 7 March 2021, from https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/pregnant-people.html

COVID-19 may lead to more maternal deaths among blacks, Latinos. (2021). Harvard School of Public Health News. Retrieved 6 March 2021, from https://www.hsph.harvard.edu/news/hsph-in-the-news/covid-19-maternal-deaths-blacks-latinos/

COVID-19 Vaccines. (2021). U.S. Food and Drug Administration. Retrieved 7 March 2021, from https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines

Creanga, A. A., Berg, C. J., Syverson, C., Seed, K., Bruce, C.F., Callaghan, W. M. (2012). Race, Ethnicity, and Nativity Differentials in Pregnancy-Related Mortality in the United States. *Obstetrics & Gynecology*, *120*(2 Pt 1), 261-268. https://doi.org/10.1097/AOG.0b013e31825cb87a

DeYoung, S., & Mangum, M. (2021). Pregnancy, Birthing, and Postpartum Experiences During COVID-19 in the United States. *Frontiers In Sociology*. https://doi.org/10.3389/fsoc.2021.611212

Giarratano, G. P., Barcelona, V., Savage, J., & Harville, E. (2019). Mental health and worries of pregnant women living through disaster recovery. *Health care for women international*, *40*(3), 259–277. https://doi.org/10.1080/07399332.2018.1535600

Giving Birth during COVID-19: One Mother's Experience | Wayne UNC | Goldsboro, NC. (2021). Wayne UNC. Retrieved 8 March 2021, from https://www.wayneunc.org/wellness/health-talk-blog/patient-teammate-stories/giving-birth-during-covid-19/

Global Tuberculosis Report 2018. (2018). World Health Organization. Retrieved 6 March 2021, from https://www.who.int/tb/publications/global_report/gtbr2018_main_text_28Feb2019.pdf

Haddad, L. B., Horton, J., Ribner, B. S., & Jamieson, D. J. (2018). Ebola Infection in Pregnancy: A Global Perspective and Lessons Learned. *Clinical obstetrics and gynecology*, *61*(1), 186–196. https://doi.org/10.1097/GRF.0000000000000332

Harville, E., Xiong, X., & Buekens, P. (2010). Disasters and perinatal health: a systematic review. *Obstetrical & gynecological survey*, *65*(11), 713–728. https://doi.org/10.1097/OGX.0b013e31820eddbe

Jeffers, N., & Glass, N. (2020). Integrative Review of Pregnancy and Birth Outcomes After Exposure to a Hurricane. *Journal Of Obstetric, Gynecologic & Neonatal Nursing*, *49*(4), 348-360. https://doi.org/10.1016/j.jogn.2020.04.006

Joseph, K., Lisonkova, S., Muraca, G., Razaz, N., Sabr, Y., Mehrabadi, A., & Schisterman, E. (2017). Factors Underlying the Temporal Increase in Maternal Mortality in the United States. *Obstetrics & Gynecology*, *129*(1), 91-100. https://doi.org/10.1097/aog.0000000000001810

Kilpatrick, S. J., Berg, C., Bernstein, P., Bingham, D., Delgado, A., Callaghan, W. M., Harris, K., Lanni, S., Mahoney, J., Main, E., Nacht, A., Schellpfeffer, M., Westover, T., & Harper, M. (2014). Standardized severe maternal morbidity review: rationale and process. *Obstetrics and gynecology*, *124*(2 Pt 1), 361–366. https://doi.org/10.1097/AOG.0000000000000397

Loto, O., & Awowole, I. (2012). Tuberculosis in Pregnancy: A Review. *Journal Of Pregnancy*, 1-7. https://doi.org/10.1155/2012/379271

Lu, M. (2018). Reducing Maternal Mortality in the United States. *JAMA*, *320*(12), 1237. https://doi.org/10.1001/jama.2018.11652

Madril, A. (2021). *Having a Baby During the COVID-19 Outbreak: A Mother's Mindset Shift*. Sunflower Motherhood. https://sunflowermotherhood.com/blogs/blog/having-a-baby-during-the-covid-19-outbreak-a-mother-s-mindset-shift

Marie, C. (2021). *Siena's NYC Birth Story During Covid 19 — Colors of Colleen*. Colors of Colleen. https://www.colorsofcolleen.com/blog/2020/5/8/sienas-birth-story

Marshall, J., Wiltshire, J., Delva, J., Bello, T., & Masys, A. (2020). Natural and Manmade Disasters: Vulnerable Populations. *Advanced Sciences And Technologies For Security Applications*, 143-161. https://doi.org/10.1007/978-3-030-23491-1_7

Mashraath, P., Wong, J. J., Choolani, M., & Mattar, C. (2020). Coronavirus disease 2019 (COVID_19) pandemic and pregnancy. https://www.ajog.org/article/S0002-9378(20)30343-4/fulltext

Novel Coronavirus 2019 (COVID-19). (2021). ACOG. Retrieved 7 March 2021, from https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2020/03/novel-coronavirus-2019

Patient-Centered Care for Pregnant Patients During the COVID-19 Pandemic. (2021). ACOG. Retrieved 7 March 2021, from https://www.acog.org/news/news-releases/2020/03/patient-centered-care-for-pregnant-patients-during-the-covid-19-pandemic

Pitre, N., Kushner, K., Raine, K., & Hegadoren, K. (2013). Critical Feminist Narrative Inquiry. *Advances In Nursing Science*, *36*(2), 118-132. https://doi.org/10.1097/ans.0b013e3182902064

Rhodes, J., Chan, C., Paxson, C., Rouse, C. E., Waters, M., & Fussell, E. (2010). The impact of hurricane Katrina on the mental and physical health of low-income parents in New Orleans. *The American journal of orthopsychiatry*, *80*(2), 237–247. https://doi.org/10.1111/j.1939-0025.2010.01027.x

Ryan, G.A., Purandare, N.C., McAuliffe, F.M., Hod, M. and Purandare, C.N. (2020), Clinical update on COVID-19 in pregnancy: A review article. *J. Obstet. Gynaecol. Res.*, 1235-1245. https://doi.org/10.1111/jog.14321

Schuchat, A. (2011). Reflections on pandemics, past and present. *American Journal Of Obstetrics And Gynecology*, *204*(6), S4-S6. https://doi.org/10.1016/j.ajog.2011.02.039

Arora, K., Mauch, J., & Gibson, K. (2020). Labor and Delivery Visitor Policies During the COVID-19 Pandemic. *JAMA*, *323*(24), 2468. https://doi.org/10.1001/jama.2020.7563

Sierra, M. (2021). *Giving birth during the coronavirus pandemic: my natural birth story - La Cooquette*. Lacooquette.com. Retrieved 8 March 2021, from http://lacooquette.com/natural-giving-birth-during-coronavirus-pandemic/

Steinhoff, M., & MacDonald, N. (2012). Influenza Pandemics—Pregnancy, Pathogenesis, and Perinatal Outcomes. *JAMA*, *308*(2), 184. https://doi.org/10.1001/jama.2012.7911

Strong, A., & Schwartz, D. (2019). Effects of the West African Ebola Epidemic on Health Care of Pregnant Women: Stigmatization With and Without Infection. *Global Maternal And Child Health*, 11-30. https://doi.org/10.1007/978-3-319-97637-2_2

Takemoto, M., Menezes, M., Andreucci, C., Knobel, R., Sousa, L., & Katz, L. et al. (2020). Maternal mortality and COVID-19. *The Journal Of Maternal-Fetal & Neonatal Medicine*, 1-7. https://doi.org/10.1080/14767058.2020.1786056

Treatments for COVID-19 - Harvard Health. (2021). Harvard Health. Retrieved 7 March 2021, from https://www.health.harvard.edu/diseases-and-conditions/treatments-for-covid-19

Understand how COVID-19 might affect your pregnancy. (2020). Mayo Clinic. Retrieved 7 March 2021, from https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/pregnancy-and-covid-19/art-20482639

Wong, P., & Kitsantas, P. (2019). A review of maternal mortality and quality of care in the USA. *The Journal Of Maternal-Fetal & Neonatal Medicine*, *33*(19), 3355-3367. https://doi.org/10.1080/14767058.2019.1571032

Xiao, J., Huang, M., Zhang, W., Rosenblum, A., Ma, W., Meng, X., & Lin, S. (2019). The immediate and lasting impact of Hurricane Sandy on pregnancy complications in eight affected counties of New York State. *Science Of The Total Environment*, *678*, 755-760. https://doi.org/10.1016/j.scitotenv.2019.04.436

Appendix

Appendix A

Blog Summaries

Andrea Madril describes her anxieties regarding giving birth during this time and her interactions with various medical professionals. She says that it is all too common that pregnant people are having to change their birth plans as hospitals instate new rules that limit visitors and doulas. Additionally, because there is uncertainty in regards to when the pandemic will end, there is a lot of uncertainty with what postpartum periods will look like with their new babies. Madril documents the ups and downs of being pregnant during COVID-19, her emotional breakdowns at her OBGYN appointment as she was overwhelmed with feelings of uncertainty and realizes that she is in control of how she responds to this situation and processes it emotionally. She goes on to list her fears which include her baby's health, the "dark cloud" COVID-19 could leave over her birth experience, the possibility of being separated from her baby if she contracted the virus, family and friends not being able to meet the baby for a while, and not having access to the same amount of support. Madril also states that she almost feels it is "inappropriate" to be writing about these hardships she could face when people are dying and losing loved ones at this time. But she emphasizes the importance of maintaining one's mental health and for her putting down her thoughts was therapeutic and could show other individuals experiencing similar emotions that they are not alone (Madril, 2021).

Jill Howell did her best to educate herself as much as possible about the difficulties she could possibly be facing giving birth during the COVID-19 pandemic. Nevertheless, when Howell and her wife arrived at the hospital they still tried to keep an open mind about the process. They were both given masks to wear during the duration of their stay and Howell was only allowed one visitor while staying at the hospital. Her wife was also asked to not leave the hospital campus more than once daily to help protect professionals within the hospital as well as other patients and visitors. Howell ended up having to have a C-section and consequently, due to the resulting longer hospital stay, her wife had to leave to take care of their other son and was not able to return to the hospital. Nevertheless, Howell emphasizes that expecting parents need to have an open mind about the delivery process during the pandemic. She and her wife socially isolated themselves for three months before her due date and did not leave the house with the exception of prenatal appointments. These appointments also looked quite different as she was not able to have her partner at any OB or ultrasound appointments and if possible many

appointments were conducted remotely. Howell says that overall, after she was able to let go of her expectations and quell most uncertainty by asking questions of her doctors and doing research she was able to have an overall positive birthing experience ("Giving Birth during COVID-19: One Mother's Experience," 2021).

Colleen Marie gave birth to her daughter Siena on April 8, 2020. She explains that having a baby during these times is not anything she had expected or had time to prepare for. She and her husband were becoming parents for the first time and she was very lucky to have a smooth and healthy pregnancy overall and wanted to have a delivery with as limited interventions as possible. She also wanted to be well informed and have a loose birth plan that she and her husband discussed and refined with their doula and OBGYN. She was able to connect virtually with other expectant individuals as well as with her doula and she thanks both of these outlets for helping her have as smooth a pregnancy, labor, and transition into parenthood as possible. Colleen and her husband live in New York and so had to deal with the changing policies present within New York hospitals and she had already been following several COVID-19 policies throughout her pregnancy. She had to go to her weekly pregnancy appointments without her partner and was wearing a mask whenever she left the house which was very rare. Her OBGYN worked out of New York Presbyterian Hospital and originally, she was told that birth partners and doulas were no longer allowed to join birthing people in labor and delivery. This was extremely crushing for Colleen, her husband, and their extended support system and she wondered whether they were doing the right thing staying at that hospital. However, she decided to stay because changing doctors this late in her pregnancy that she did not have a rapport with and having to pack everything up was even more daunting. She ordered a phone clamp so she could FaceTime with her husband throughout the delivery process and prepared for birthing alone with her doula. However, a week before her due date she learned that the policy had changed and birth partners would be allowed to be present for delivery. They would have to have their temperatures taken, war PPE, and leave once she was transferred to delivery but nonetheless it felt like a giant weight had been lifted. However, if she ever were to test positive for COVID-19, no visitors would be allowed to be in her birthing room. Towards the end of her pregnancy, Colleen had a bad cold and one of her strangest symptoms was a loss of taste and smell which at the time was not a well-known symptom of COVID-19 and she did not have easy access to testing to check. On April 7th, she began having contractions but they were not intense

enough to go to the hospital yet as she wanted to labor at home for as long as possible to avoid further exposure at the hospital. 24 hours later, with her contractions getting closer together, her doctor recommended they drive to the hospital. Upon arrival to the hospital, Colleen was triaged and dilated to almost 4 cm and was told she would be admitted. She was then swabbed for COVID-19 as was her husband and they were both taken to the delivery room where they met their labor and delivery healthcare team. Her labor progressed and received the results of her COVID-19 test, which was positive even though she was asymptomatic. Colleen ended up having to say goodbye to her husband, who also tested positive, as he was no longer allowed to stay in her delivery room to limit further exposure risk to hospital staff. She was however allowed to have one support person by her side throughout the birth and so her friend, who tested negative, came and helped her through her contractions and encouraged her throughout the birthing process. Her husband was FaceTime in for the duration of the delivery. Colleen eventually had her baby a few hours later. The child was perfectly healthy and tested negative for COVID-19 over three times during the next two weeks. Currently, Colleen and her husband are enjoying their time with the new baby and Colleen is participating in a breast milk study for mothers who tested positive with COVID-19 (Marie, 2021).

Isabel is a nurse in both Labor and Delivery and the Emergency Department so as a pregnant individual during the COVID-19 pandemic, she was trying to prepare for the worst and hope for the best. Several aspects of her original birth plan had to be altered, including wanting to use Nitrous Oxide gas as a form of pain relief, but Isabel tried her best to have a positive attitude. After her due date of August 27th, 2020 passed, she became more restless and hoped she would go into spontaneous labor. Her pregnancy was uncomplicated overall other than hyperemesis gravidarum during her first trimester and being diagnosed with Group B Strep (GBS) at 36 weeks gestation so she was hopeful her delivery would be likewise uncomplicated. Because of her GBS diagnosis, her OB recommended scheduling an induction between 41 and 42 weeks; she ended up scheduling an induction of September 3rd. On August 31st, she was checked by her OB's office and was 2cm/50% effaced and so she was hopeful she could go into spontaneous labor soon. On the evening of September 2nd, Isabel had her first real contraction and she decided to call her midwife because she lives 30 minutes from the hospital and began progressing faster than expected. She continued laboring at home for a few more hours before driving to the hospital where she was immediately checked in and was 2cm dilated but fully

effaced and her water had not yet broken. Her labor quickly became very intense and she decided to get an epidural but asked for the lowest dose possible. A few hours later, her midwife came and checked in on her and discovered that although Isabel was 10 cm dilated and fully effaced, her water had still not broken. Because she could only have one support person with her, her husband, she called and texted her friends and family with updates and video chatted with her mom. Once she began pushing, her water was broken and eight contractions of pushing later, her child was born. She had minimal pain for the next few hours and then was pain-free and had no other issues so she and her husband were able to take their baby home the next day ("Birth story- Isabel and baby Zoey," 2021*)*.

María was pregnant with her second child during the pandemic and gave birth to her on April 20th, 2020. She felt less prepared for this birth than for her first baby because of the pandemic but she was able to have an overall positive experience. About four months before giving birth, her doctor discovered that she had placenta previa which means that her placenta was covering her cervix. In most cases placenta previa corrects itself but in María's case it persisted which means she could not do any strenuous exercises and because there is an increased risk of bleeding out with vaginal labor, individuals with this condition are usually scheduled to have a C-section. However, María had a natural birth with her first child and was planning on doing the same with this child. She was extremely happy when late in her pregnancy the placenta previa had miraculously resolved itself but at the same time she was grappling with the news that COVID-19 had come to the United States. The potential US-Mexico border closures and travel cancelations made María and her husband decide to move out of their home to be nearer their doctor and hospital. She had to quarantine in this new environment with only the essentials she was able to pack. Additionally, María had to go to all prenatal appointments by herself and she began fearing her birthing experience would be impacted as well. At the end of week 38, she began having early labor contractions which stopped after about half a day but she had already dilated 1 cm. María wanted her labor to continue to progress as she was anxious about the restrictions that other laboring individuals were facing due to the pandemic. Her hospital, Sharp Mary Birch in San Diego, is completely dedicated to serving birthing people and their babies so she was happy to hear that their containment measures weren't too strict. However, she was told that only one person would be allowed to accompany her into the hospital so her extended family would not be able to be present. Luckily, her mother who lives in Mexico

was able to fly out early before most international flights were cancelled. On her due date, María began having regular early labor contractions at the beginning of the day. Later in the day, her contractions became very painful and she made the decision to head to the hospital. After arriving, María went into triage but her husband was not allowed to come with her until she was admitted. The nurse who was monitoring her contractions found that she was only 3.5 cm dilated and her cervix was still a bit thick so she had to go and ask María's doctor for approval to get her admitted. María's doctor decided that she should wait and could either stay inside the hospital wandering the floors until she was 4cm dilated or she could go home. Due to how much of a hassle it was for María to leave home in the first place, she decided to stay. However, this meant that her husband was not able to be with her for what ended up being 90 minutes of painful contractions. During this time, María describes feeling lonely, vulnerable, afraid, and not confident as she had not prepared as much for this labor as she had for her first born. Once she was dilated 4cm, María was admitted and her husband was allowed to be with her in the delivery room. She describes the emotional moment when she was reunited with her husband and emphasizes the importance of all women being able to have a companion during birth-- it is crucial for quality care during labor as studies have shown. After her water broke the following morning, María's labor progressed very quickly. After she had reached 10 cm, it took about 5 pushes before she was able to give birth to her child. María's message to other people who are pregnant during the COVID-19 pandemic is to focus on the positive and beautiful event that is bringing a human being into the world. She also states that if hospitals have strict policies, inquiring about having a partner or doula with you as you labor is a right as stated by the World Health Organization (Sierra, 2021).

Sarah gave birth to her second baby on June 18th, 2020. She went into labor the night before her scheduled induction on her due date. Because her initial plan was to be induced, she had been told to get a COVID-19 test the day before. Sarah went to drive through COVID-19 testing which she described as something out of a horror movie and she cried on the way back home because of how unnerving the experience was. The day before her labor she was very uncomfortable and later in the evening her water broke. Her contractions were about 3 minutes apart and they were very strong. Since she tested negative for COVID-19, upon arriving at the hospital she was admitted right away and did not have to be in a COVID-19 unit. She had her water broken as well as IV pain meds but eventually ended up having an epidural in order to save

some strength to push later on. After the epidural, she could not tell when a contraction would happen at all and any cues from her body letting her know when it was time to push were erased. Therefore, Sarah asked her nurse to tell her when a contraction was peaking so she could push at the right time. The nurse was very supportive of Sarah directing her own pushes and had Sarah feel her baby's head and gave her a lot of feedback on the pushes that were productive and those that were not. She ended up giving birth on her back but her baby came out perfectly healthy. Overall, Sarah says that her experience was positive. She gave birth at a community hospital in Milwaukee where the staff was wearing more PPE and she and her partner did not have as much freedom of movement around the hospital. However, the actual birthing part was similar except for the fact that friends and family were not able to visit afterwards. Additionally, once she was able to take her baby home, she was not able to have her extended family come and help as much as she did for her first baby due to quarantine. Not having this in-person support was particularly difficult as she was only able to connect with her parents virtually. Sarah recommends creating unique support systems during this time-- reaching out to loved ones, mental health providers, and online communities of expectant and new parents ("Birth During the Pandemic," 2021).

Appendix B

Interview Questions

This is how I began each of my interviews:

> Thank you so much for agreeing to participate in my research. I truly appreciate you taking the time to talk to me. I want to let you know that I went through the review process for my research and I was exempt from having to obtain consent forms from participants because I will not be including any of your personal identifiers, which include your name and birthdate, in my final paper. As for the overall format of this interview, I am just going to ask you a few short answer questions in the beginning for context and then I will have you share your experiences. Is it ok with you if I record this interview?

I then started the question and answer portion of the interview by asking the following questions if the woman had recently given birth:

> What are your pronouns?
>
> What pregnancy was this for you? Ist, 2nd, etc?
>
> When was your baby born?
>
> What is your age?
>
> What race and ethnicity do you identify with?

If the woman I was interviewing was still pregnant, I would instead ask the following questions:

> What are your pronouns?
>
> What pregnancy is this for you? 1st, 2nd, etc.?
>
> What is your age?
>
> What race and ethnicity do you identify with?

These first few questions were meant for me to collect some standard data across all of the interviews. After these initial questions, I proceeded to ask participants a broad question allowing them to share as much of their personal experience as they wanted to. This is what I asked women who had recently given birth:

> Now can you tell me your birth story as well as any important details about your prenatal and postpartum care?

If the woman I was interviewing was still pregnant, I would instead ask the following question:

> Now can you tell me about your prenatal care experiences? Could you also share your birth plan?

After the above question, the interviewees would openly share their story. If necessary, I would ask some follow up questions in order to address more specific aspects of their stories including:

Looking back is there anything you wish was available to you in terms of support, information, etc.?

How did you cope with having a child/being pregnant during the COVID-19 pandemic?

Do you believe COVID-19 impacted your experiences at all? If so, in what ways?

Once I believed I had enough information and all the necessary questions were answered, I thanked the interviewee for taking the time to talk to me and concluded the interview.

Appendix C

Interview Summaries

Interviewee I

My first interview was with a 40-year-old white woman who gave birth to her child in mid-March of 2020. This was her third pregnancy. She described how she utilized midwives for each of her pregnancy experiences and learned more about her body and the support she wanted with each pregnancy. Additionally, she was particularly drawn to water births and found water to be very centering and calming for her. She then explained her reaction when initially hearing about the first COVID-19 cases in Michigan and the concern that caused her and her husband especially since her baby was originally due sometime in April. This is how she described her response to hearing this news:

> "The alarm bells obviously went high for my husband and I and we were quite concerned about what this meant. We are fairly level headed and calm people and so what I tend to do is research. If I am feeling uncertain about something, I want to know as much as I can about that something. With my kids, I have always read a lot of literature and this helped me to feel calm and centered. And so, when something out of left field arrived, I thought, 'Okay, what do we know about the situation and how best I can handle this?' At the time, everyone was saying that COVID-19 was transferred probably by contact they didn't yet know it was airborne. So, there were really no mask mandates yet. I remember I was texting my doulas… and I really wanted to get an understanding of how it might go down at the hospital. I wanted to assure myself as to what that day would look like and try to control as much as I possibly could, knowing that there'll be a lot of external factors that one can't control."

She then explained that when her water broke at 3am the morning, she did not feel prepared for having her baby quite yet. However, she reflected on the reality that in hindsight it was better that her baby came early because hospitals became really busy with COVID-19 cases in April and the main surge in cases in Michigan occurred in those later weeks. When she arrived at the hospital it was relatively quiet. The nurses who over saw her care discussed how they were building the COVID-19 units but they were not yet being asked to work in them. She explained that there was a sense of "concern and urgency" among the staff at the hospital that she had not seen in public. Additionally, leading up to arriving at the hospital there was a lot of uncertainty surrounding whether or not she was going to be able to have anyone in the labor room supporting

her during the birthing process. She remembers thinking that worst case scenario was that her husband would drop her off at the hospital, go back and watch their older children, and her doula would be her one support person. She said that this would not have been ideal but was also hearing stories of women in other parts of the United States who were having to give birth alone and that thought was "terrifying." So, she was very thankful that the hospital at which she gave birth was allowing two support people to be with birthing mothers. She was also very grateful that her mother, who was a retired teacher and who had been substitute teaching was told the day before she went into labor that the school was going all online. This allowed her mother to be able to come and watch her older children. Her mother arrived to her house a couple hours after her water broke but she describes not yet having any serious contractions. She called her doula and the hospital who told her at this point to come in for a non-stress test as soon as possible because she was 37 weeks. She did not want to go too soon for fear of having to return home but she also knew because of her two previous birthing experiences that she labors quickly. In the early morning, she decided to go to the hospital remembered feeling concerned:

> "I remember thinking, in my mind, I'm going into a place where there is a potential for exposure to this unknown, this new novel virus, and how then I could bring that home to my children and you know it's a little terrifying. So, of course, knowing what we knew at that time I was sanitizing my hands constantly, wiping everything down around me, trying to be as cautious as possible."

Her contractions began on the car ride there and were about one to two minutes apart. However, once she and her husband arrived and met up with her doula, her contractions stopped. The hospital staff reassured her that everything is going well and the baby is fine and they do take her to a room. Once in the room, she tried multiple methods to get her contractions to start again including using a birthing ball until they finally started again. They were pretty intense at this point and because of her prior experience giving birth to her other children, she could sense that her body was progressing. However, the hospital staff was hesitant to check her progress for fear of "potentially inserting bacteria, or germs." She described being in this strange space where she didn't know how far along she was but were she was mentally preparing herself to have this baby and tried to listen to her body, telling herself positive affirmations to motivate herself. Eventually, she felt the urge to get into the birthing tub they had prepared for her in her room. At this point, her midwife had left the room as had the nurses. With the help of her doula she was able to get in the tub and also used essential oils to help her become calm and connect to her

body during the contractions. She got onto her knees and into a wide stance which she said was a very useful position for her. Her breathing changed and at this point her doula came and knelt beside the tub. Then, the nurses returned to the room and they all made sure to be verbally affirming her during this process. She labored in the tub for just a little over 30 minutes and the baby was born into the water. She then pulled the baby, whose arms were outstretched, out of the water and onto her chest. This was her overall impression of this birthing experience:

> "I just felt like the energy was there and the vibe was there and everybody was really supportive and warm. And it was just probably the best birth experience I had which is strange considering the context and the concern of COVID-19 at the time."

After the birth, she returned to the bed and delivered the placenta. She then explained that with her two previous children, they had been diagnosed with jaundice shortly after they were born. However, initially this particular child did not show any sign of jaundice but during the first visit with the pediatrician the day after her baby was born, the baby did look slightly yellow. She had to take her baby to the blood lab for testing. Looking back at how many places within the hospital she and her baby went during this time made her "cringe." When the results came back, her baby did have jaundice and needed to do light therapy. This meant that she would need to take her baby back to the hospital and she was not comfortable doing that because as a postpartum woman and a newborn baby, they could be more susceptible to disease. The hospital said that they would let her know when a bed was available and her baby could receive light therapy. This was a scary moment because she had to take her baby back to the hospital. Her pediatrician then called and said that there was a new policy due to COVID-19 which meant there were no more direct admits but instead they would have to go to the emergency room to be admitted. This caused her great concern because she did not want to take her healthy baby into an emergency room during a new and novel pandemic. She recognized that her baby needed to receive light therapy for their health but it seemed "unethical" that she had to do that by going through the emergency room and this situation brought her to tears. The pediatrician calls her back and she is very relieved to hear that she was going to have her baby directly admitted to the hospital. Once she got to the room, her baby was placed in an incubator to receive light therapy. She recalled that there were several hospital staff going in and out of the room and she tried to be vigilant and disinfect surfaces as possible. They were only at the hospital for one full day and were able to return home two days after arriving. She then recalled the moment when she had

first brought her baby home, prior to having to return to the hospital for light therapy. Her mom and sister, who was pregnant herself and was due in July of 2020, had been watching her kids and they quickly left as soon as she arrived, due to the unknown of what she may have been bring home. She said this about that goodbye:

> "Logically, I understood it, in a sense that they could not stay to see the new baby. They kind of just saw him for a second and were like, 'Yeah, he's great. Got to go because it's too dangerous.' We just didn't know what the implications could be. I remember expressing that to my husband, like how unhappy that felt to not be able to have those women around me."

When she returned home from the hospital the second time, she felt as if she knew a little more about COVID-19. However, she also believed that her experience was quite different from those of her pregnant friends and sister who ended up giving birth later in the summer because she had her baby towards the beginning of COVID-19. Since then, she says that virtually no friends or family have come to visit. Additionally, she has groceries delivered or picked up curbside and has literally not step foot in a building since the birth of her child in mid-March. She says that on some level it has been "traumatizing" and concerning since they want to make the best choices for their children and don't know the potential complications for children. She went on and said:

> "You know you're going to sacrifice things anyway, you're going to stay home for them, you're going to do a lot for them anyway. During the pandemic, you just have to be more creative and make things enjoyable. We can do other things, you know, and go to the zoo another year."

Interviewee II

My second interview was with a 25-year-old African-American woman who gave birth to her baby in mid-April 2020. This was her fourth pregnancy. She previously had two other children and decided to terminate her third pregnancy. She also had a history of experiencing preterm labor but she and her healthcare providers never figured out quite why that was. However, she was still able to go to full term with her two previous children but her third child was born pre-maturely. Additionally, she had no major health issues that could have contributed to difficulties carrying a pregnancy to term. She also disclosed that she did have a history of post-partum depression and chronic anxiety. She was working two full time jobs while pregnant and had also recently moved back in with her mother. For this third pregnancy, she decided to see a different provider that was recommended to her by her mother. She actually had made an

appointment with this new ob-gyn before she even knew she was pregnant and once she arrived, she found out she was in fact pregnant and the appointment changed to a prenatal one. Everything was going well in terms of her prenatal care. However, she noted that this new ob-gyn did not perform certain procedures during her prenatal care than she was used to with her previous ob-gyn. She stopped working one of her jobs and continued working at her second job that was affiliated with the hospital that her ob-gyn worked at. In late January or early February, she started feeling sick. She had the flu previously, in the past fall, and said that this sickness felt very different. She had a runny nose and her throat was hurting. She tried drinking tea to see if that would help but it did not and her symptoms worsened. She then started having fevers and her runny nose and sore throat did not go away. However, she was not thinking it could have been COVID-19 because it had just started being prevalent in the United States at that time. One of her prenatal appointments was missed because she was feeling so poorly and she remembered her breathing being especially labored on that day. She tried lying in bed but her heart was racing and she was gasping for air. This went on for about a week. She also said that she does not really like hospitals and the plan was for her to go to a birth center. She paid out of pocket in order for her to receive care through the birth center and she wanted a water birth; all of her other birthing experiences had been natural ones as well. COVID-19 was another reason why she wanted to give birth not at a hospital. Her sickness kept progressing and when it got to the point where she was having difficulty keeping food down, she decided to call her doctor. Her doctor told her to come to the hospital so she could get fluids and to get her fever down. She did not think that she was going to also be having her baby. This is what she said about the beginning of her hospital stay:

> "I was not having contractions, I did not have Braxton Hicks contractions, and I was only 34 weeks at this point. So, I would never have assumed that I was going to have a baby. With a lot of the things that happened, I feel like I was misinformed and my voice was just not heard. When I got to the hospital, they tested me for COVID-19 automatically because of my fever. That was just automatically the fear. A lot of people were coming in and out of the room in a lot of PPE gear. I just thought I was going to get fluids and so they contacted my doctor and she tells the hospital staff to monitor me and to keep my fever down. So, they are giving me Tylenol but my fever keeps spiking up. I was then tested a second time in the triage room before I was ever admitted and both came back negative. Then they told me, 'Okay, your fever's down but we are going to keep you to

> continue to give you IV fluids.' They never said overnight or anything, they just said they were going to give me fluids and that was all. They also told me my heart rate was a little elevated as well and that they were going to keep an eye on that, too."

She then gets to her room. They do not let her shower for over 24 hours and but she said a nurse finally gave her some things to shower with. They also are running a lot of tests on her. First, they told her she had pneumonia, and that she needed an MRI. She also had a lot of EKGs run. She was then placed on bed rest and they barely wanted her to get up to use the bathroom. Hospital staff was monitoring her and the baby the entire time and she also had to get oxygen at one point. She said that she knew something was wrong, but because of all her negative tests she is not sure if it was COVID-19. This is what she said about her overall experience:

> "I don't think they handled the situation well. I was not treated fairly. Everything was robbed from me. I know that there are certain precautions you have to take but it was all just very poorly handled."

The next morning, she was woken up and her room was full of doctors and nurses. She asked why they were all in the room and they told her that she had to be induced. She was shocked by this because she was just 34 weeks and had not be informed about this at all. She was also told that she would have to have a C section and that her baby would have to be taken away from her right after they were born. She said this about her thoughts at this moment and her birthing experience:

> "They did not give my any options. They did not provide me with enough information. I told them, 'Well, at least can I call my mom?' I needed to call someone because what if something goes wrong? My doctor then told her that she would call her but I wanted to call her myself. And so, I FaceTimed my mom and then my doctor talked to her. Afterwards, my mom told me that my doctor said that I had COVID-19 but no one had ever told me that. And that fact is confirmed because I was not told that I had COVID-19 until I was discharged when a doctor called me and said, 'Hey, we got your positive results.' And I just think that's really convenient. Anyways, so we get to the operating room and they told me about my pain medication options. I asked, 'Can I at least see his face?' but nothing was done. They gave me the medicine, and told me what I should expect to feel during the procedure. After they finished with the surgery, I heard him cry and the door close. That was it. I was not allowed to visit him. He was born on the 12th and I was not allowed to visit him until the 22nd. The only reason I was allowed to see him then was because I was advocating for myself as well as others, such as my doula

and other midwives. After the C section, they took me to the cardiac ward because I had lost so much blood and needed a blood transfusion. My blood transfusion did not go well at all. My whole arm was purple and black for three days. When I woke up, there was blood all over my bed. And because I was on the cardiac floor, I did not have access to the regular room service and breakfast, lunch, and dinner. They just walk in with meals and medicine, without even telling me what medicines they are giving me. I wondered, 'Should I be taking all of these at once?' Because one type of medication can affect the other but they don't expect you to know that much, especially considering the fact that I am young and African American, they don't expect me to know what I know. I went to school to be a medical assistant and so I'm not just oblivious to things. It is just hard to try and fight and advocate for yourself when you have just had a baby. I am the patient here, and so I would expect to be able to trust hospital staff and that they would have my best interests at heart."

While she is personally being mistreated by hospital staff, she is also not informed of what they are doing to her baby or how he is doing:

"I was not consulted about anything with my baby. They tested him twice for COVID-19. They never asked me if I wanted him to be tested. They started giving him a pacifier. I planned to breast feed but I was not given a breast pump. And of course, my body is already confused because I delivered at 34 weeks. I also did not have skin to skin contact with my baby because he was taken away from me. I ended up having to take medication just to produce milk. Nurses were taking pictures of him and sending them to my phone but they shouldn't have had to do that. Everything pretty much was terrible. I requested my medical records twice and I went home before my son did. The patient advocate from the hospital was in contact with me from the day he was born until he came home. But there was not a moment where she was truly advocating for me. It was always just about the hospital. She asked me to have certain things that those advocating for me posted online taken down. I have all of this in emails so that I have proof and I also hired a paralegal who instructed me on what to say so I could hold the hospital accountable. And that is the only reason why the allowed me to see him."

She then described when she was finally able to see her son:

"So, about a week after giving birth, they made me wear full PPE gear and made me breastfeed him while wearing PPE. The first time I got to see him was with PPE on and it was just awful. Then, they wanted me to leave the hospital without even seeing him. They closed down the Starbucks in the hospital and bring him in his incubator. They also had

four security guards with him inside the Starbucks and made me just look at him through a glass door. It was not even for five minutes."

She has also had several complications herself after the surgery. She had issues with her blood pressure and had to take medications for her milk supply. Her son luckily did not have any health issues. However, they gave him a feeding tube in order for him to be able to come home and they gave him a lavage because they said that his suction was not strong enough. However, she was able to breastfeed him easily so she knew he could latch well. Because breastfeeding is so much harder than bottle feeding, she wondered why they did not just bottle feed him rather than giving him a feeding tube. She also told them that she did not want him to have a pacifier because she wanted to breastfeed and doing so causes nipple confusion. Once she got home, her son was still at the hospital for a while and so she had to have scheduled Zoom calls with him and a nurse would hold an iPad for her to be able to see him. The hospital was also not communicating well with her about whether or not she could see him, if she could breastfeed in person or if she had to pump at home and then drop off the bottles at the hospital. Her doctor never called to check in with her. When she was finally able to take her son home, she had to wait a while in order to receive his medical supplies, was learning about how to care for a preemie, and was also healing herself from a C section. She also said this about her postpartum experience:

"To this day, I have still not see my positive COVID-19 result and I have requested my medical records twice, as well as my sons. They legally have 30 days to respond, to tell me whether or not they are going to send them. But again, they don't expect me to know that either. They took over 30 days to respond and even longer to send his results. I also did not sign his birth certificate. I was discharged and so someone asked me all of his information over the phone and then drove to my house and I signed the birth certificate on the porch. So that is know they treat mothers during COVID-19. I am not sure that this is everyone's experience, but it was mine and it was awful. I feel like if the color of my skin was different, a lot of things would have been handled differently and I would have received better care. They would have probably at least have consulted with me and they didn't consult be about anything. It was like I didn't have any rights anymore because of COVID-19. The fact that he was born and they just took him and took me off the entire labor and delivery floor itself is just traumatic."

Interviewee III

My third interview was with a 31-year-old white woman who was 35 weeks pregnant at the time of the interview. This was her first pregnancy. She is a midwife and so she works at a practice with several other midwives and doctors. She had been doing all of her prenatal care with the same practice she works at and plans to deliver at the hospital they are affiliated with. Her care had been very routine. She has been going every four weeks from the beginning until around 28 weeks and she also had a gating ultrasound at around 6 weeks to confirm her due date and a structural survey around 20 weeks. After 28 weeks, she went every two weeks for a visit and after 36 weeks she will go every week until her baby is born. At each of these visits, she met with a midwife, who took her blood pressure, and measured her belly. They also discussed any questions or concerns she might have and she has some routine lab work done. She also discussed her experiences as a midwife during the pandemic:

> "It's definitely been a challenge. Our office offers virtual visits for anyone who feels more comfortable doing it that way or anyone who has been exposed to the virus. The majority of our patients are wanting to come to the office, which we are fine with just so long as they are not ill and have not recently been exposed. And we have limited the amount of other people that can come with them. Right now, we are only asking one other support person and they can only come for shorter visits. For longer visits, we are asking that just the mom come. The hospital has been kind of all over the place. Everyone gets tested for the virus when they come in and are in labor, which has been a sore spot for some people and other people don't mind as much. We have had a lot of asymptomatic patients test positive, which is a little scary, especially because that means that I have probably been exposed."

She also believed that COVID-19 has impacted her own personal experiences. When she went in for her first ultrasound, her husband was not able to come and this was especially disappointing because this is their first child. She was able to record as much of it as possible for him. She said that it has been beneficial being a provider because she knows more than she expects the average expectant mother during this time. However, being pregnant during a pandemic has definitely impacted the way she interacts with her patients. If they tested positive, she was not able to be at the bedside during labor as much as she normally would be able to. She has to wear protective gear around patients which impacts the way you relate to people. This is what she said she has heard from other pregnant mothers:

> "I have had patients tell me that they feel like they are being treated differently by nursing staff and by us. It is because people are scared of the virus and so they are less likely to make physical contact with the patient as they otherwise might have. They spend less time in the room than they otherwise might have. Then there's definitely this changing demeanor and how they treat the patient based on whether or not they are COVID-19 positive."

She also wishes there were clearer guidelines and more information on how this virus impacts pregnant women. Particularly with the vaccines for COVID-19 now being available, and being a pregnant provider, she believed it would be greatly helpful if more information was available on whether or not pregnant women should have it. She says that because it is a novel virus, it is going to be hard to have a lot of research on it. But at the same time, she has patients who want to be able to take time off from work in order to better care for themselves and their babies and so it would be nice to have scientific evidence to back up their concerns. She has also wondered about how she has probably been exposed during the course of her own pregnancy as she has worked during the entire pandemic and how this could potentially impact her baby and her delivery process. She makes sure to keep updated on CDC recommendations and the new, reputable information that is available on COVID-19. She said that working with an amazing group of women who are very knowledgeable and some of whom were also pregnant themselves has been very helpful. They all shared information and talked about the emotional and physical side effects of everything that is going on in the world. She said that being pregnant at this point in history is unique to being pregnant at any other point in time and so her community of providers is something she relied heavily on for support.

Interviewee IV

My fourth interview was with a 25-year-old white woman who gave birth to her baby in mid-March 2020. This was her first pregnancy. Because she gave birth to her baby a few weeks before the first lockdown, all of her prenatal care was in person. However, about three weeks before her baby was born, her midwife told her to start quarantining now because of COVID-19 and because not much was known about it. She said this was kind of nice because she was very pregnant and it was great to not have to go anywhere or to see people. There was also some uncertainty regarding how many support people she would be able to have during birth. It ended up where her husband and her doula were able to be there during the labor process and then one additional visitor, her mom, was able to come after. As far as her labor and delivery process, she

was in labor for basically an entire day but the labor was pretty mild. It got much more intense when she went to bed at around 10pm and so she did not sleep very much and was up with contractions for most of the night. She was texting with her doula throughout. The intensity of her labor increased even more at about 3am but then it slowed back down. Her doula told her to have something to eat and to go for a walk to see if that could help her labor progress. At about 10am, her doula came to the house when her contractions became stronger. They kept on going for walks and she also tried taking some naps because she had not slept all night. This is what she said about this point in her labor:

> "I really wanted to have an un-medicated birth and to try to be in the hospital for as little time as possible so I could be comfortable at home. Our doula tried to keep me at home for as long as she could. I remember we were out for a walk and I started saying that I felt a lot of pressure and she just said very calmly, 'Okay, I think it's time to go now' and I was like 'Oh, okay.' So, I think that was like 2 in the afternoon and we are like 10 minutes from the hospital. The drive was definitely not fun but it wasn't as bad as I thought it would be. We got there right around 2 and then my baby was born at 6:30 so it was really fast."

She also said that she remembers when she was checked in the asked her if she had been out of the country recently and if she had any symptoms of COVID-19. They also asked her husband and doula the same questions and gave then passes to come in. Once she was in the room, just 5 minutes later her water broke and then about an hour later she started pushing. She pushed for about 2 hours before her baby was born. So, her birth went really well, but it was the postpartum experience that was a lot harder:

> "This memory sticks out in my mind so much because she was born on a Sunday, and the Wednesday before that—we live in a college town, and the college shut down the Wednesday before. My husband actually works for a student org on campus and so we knew it was getting more serious but we didn't fully understand yet. We weren't really checking the news while we were at the hospital. I mean, we knew thing were getting more serious but we just didn't know the full extent. The memory that sticks out in my mind when it all hit me that this was going to affect our lives, was when a nurse who I had really connected with and who I turned to give a hug when we were leaving turned to me and said 'Oh, we probably shouldn't hug or be this close to each other.' And it hit me, they're worried about COVID-19."

Lockdown started a couple weeks after her baby was born, so she said her family was luckily able to meet her baby. She also said that looking back, because of how little was known about COVID-19 at the time, they did not really know how much risk they were taking on. Additionally, she said she remembered filling out a baby book and one of the prompts was to include the news headline from the day the baby was born. She looked up the *New York Times* headline and it was something about all the COVID-19 cases in New York City. It was crazy timing and she felt very thankful that her baby was born before things got really bad and that none of her prenatal appointments were affected. However, following the lockdown, they have really not seen family or friends and any time they have, they made sure those they went to see had quarantined for two weeks. She has also not been able to take the baby to meet her grandparents. Additionally, she was having difficulty breastfeeding and wanted to go see a lactation consultant. However, she was not sure whether or not she would be able to go and see one. The place where see was referred also was not doing telehealth yet and so it was pretty scary because it was to the point here her baby was not eating. She was able to get in and things have gone well since. Overall, it has been a very different experience from what she expected and it has also been super lonely and isolating. She also believed that she was struggling with postpartum anxiety that was at least in part due to the pandemic. However, the silver lining was that her husband has been working from home and so he got to spend more time with the baby than he would otherwise.

Interviewee V

My fifth interview was with a 38-year-old Hispanic woman who gave birth to her baby on in late December 2020. This was her first pregnancy. She found out she was expecting at the end of April, 2020. She is a physical therapist and so she works in a hospital setting 6 months of the year and the other 6 months she does in patient care. When COVID-19, began she was working in the hospital but she was supposed to be rotating back to inpatient around the time she found out she was pregnant. However, this was uncertain because they had closed those clinics in March due to the pandemic. When she took the pregnancy test and got a positive result, both she and her husband were shocked. They were open to the possibility of having a child for about two years and nothing had happened. So, they were thinking that maybe having a child was not going to be a possibility for them because they were getting older. But once she found out she was pregnant and because she works in women's health physical therapy, she knew that she

wanted to have a doula. She also changed providers because she wanted someone who focused more on natural birthing and did all of her prenatal care through them. Because both she and her husband were older, they underwent genetic testing but decided to not do an amniocentesis done. Her 20-week ultrasound went well and everything looked normal and so she didn't have to do any ultrasounds after that. As far as her labor and delivery experience, she began having contractions around 2 in the morning. However, she was not quite sure if it was just cramping so she was able to go back to sleep for a couple hours. At that point, the pain was keeping her up so she went into a spare bedroom and started tracking how consistent her contractions were. At this point, she became quite emotional, as she described texting her mom at this point in her labor:

> "I was texting with my mom who lives in another state. And so, I was just talking with her about the fact that my contractions were staring. It's obviously hard because I had wanted my mom to be a part of this journey but she couldn't because of the pandemic. But it was nice to be able to talk to my mom in the morning."

She was supposed to go to work that morning and because she knew that it could have been false labor, she said she thought she would try and get ready. However, the contractions continued and she was not able to go to work. At about 7am, she told her husband who was getting ready for work that she was going to have this baby soon. Her goal was to stay home as long as possible before going to the hospital. So, she and her husband had breakfast and went for a walk to see if that could help expedite the contractions which at that point were about 5 minutes apart and not lasting very long. They came back from their walk and she tried to take a nap but was unable to due to the contractions. She ate lunch and then tried to work through some of the contractions at home by using an exercise ball and other positions. She had told her doula that she was having contractions but did not see the need for her to come to the house. In the early afternoon, her water broke but her contractions were still not very close together or happening for a long period of time. She called her doula and they suggested that she try an inversion position. This greatly helped her contractions become more intense and frequent. She and her husband ate dinner at around 6pm and at this point the contractions were pretty consistent—2 minutes long and 2 minutes apart. At this point, her doula said that now would be a good time to go to the hospital. She let her family know that she was in active labor and they went to the hospital. Her doula met her there and she was taken into triage. She was only 3 centimeters dilated and this was very disappointing to her. She was taken to a room and because her COVID-19 test was negative she

was told she did not have to wear a mask while laboring, which she was very grateful for. At 2 in the morning, she was feeling that she "couldn't do this anymore." She said that it was the encouragement of her husband and her doula that allowed her to keep going and so she was very thankful to have their support. Her doula encouraged her to get in the birthing tub to see if this could help. She said this was very relaxing to the point where it slowed her contractions and she was basically sleeping on the side of the tub. She was on there for about an hour and then she got back onto the bed. A little while later, her water officially broke. Then, in the early morning on Christmas day she started having pushing contractions. The baby was delivered about 30 minutes after she started pushing. She wanted to do skin to skin contact as soon as her baby was born but when her baby was delivered they were blue and the cord was wrapped around their neck. This is how she described this experience:

> "They needed to cut the cord immediately and take him to the incubator quickly because he was not breathing. They suctioned about 15 milliliters of fluid off of him and I had encouraged my husband to go and be with the baby while they were starting to take care of me after the birth. Luckily he started breathing again and they brought him over to me and put him on my chest and I started nursing right away which was amazing."

Her doula stayed to make sure the baby latched and to make sure everything else was all right but because it was the holiday season she really wanted them to be with their family. She was then transferred to the postpartum floor and she was exhausted as neither she nor her husband had slept for over 24 hours. Her husband had let their family know that the baby had arrived and that they were both doing well but said that they would send more details later. Once they were settled in the room, they FaceTimed family and friends and showed them the baby. She and the baby stayed overnight and her husband went home to sleep at their own house. She then described what happened later in the night:

> "We were sleeping and my baby was in the bassinet next to me and I started to hear him gag. And then I hear him not breathing anymore. And they had told me that if I needed anything I was to pull the cord out of the wall. So, I did that and immediately got him on his side and started tapping on their back to try and get them to breathe again. The nurse came in and their color was a little blue at that point but they had started to breathe again. They just think that because the baby came so quickly that they didn't get that good squeeze to try to get the fluid out of his lungs and his stomach. But talk about a traumatic

> event for a brand-new mother to see you baby is not breathing. It has not happened again, but it only takes one time and you are super nervous."

Because of this event, she and the baby had to spend another night in the hospital to make sure he was going to be all right. Once they were able to get home, the baby has been doing very well ever since. However, she still really wishes her family was able to be there for the birth and they have not been able to meet the baby in person yet either:

> "It would have been ideal if my mother could have been here with me. Unfortunately, she couldn't be because of travel and distance and even if she had been here, she wouldn't have been able to come to the hospital. Both of my parents had COVID-19 and my dad was in the hospital for 14 days because of it. My mom fortunately did not have as bad of symptoms but she was not doing well and was still in the recovery process. I also experienced significant losses during my pregnancy including our dog and one of my uncles because of COVID-19. So, I think that I wish I would have taken a little bit more time maybe talking with a counselor about some of that loss. It definitely played a part during my labor because there were so many times I wanted to cry during my labor. But I was so exhausted, it didn't happen. After about a week later I ended up having to go to the doctor because I was experiencing some issues and I actually ended up crying in the office. It just wasn't an ideal situation. My sister had her kids and the family all got to be there. For my child, he's over a month old and nobody in our family has been him and friends have only come to see the baby through the window. My husband is amazing, I'm so grateful to have him, but there is nothing like female companionship, who can say that they've gone through it and know what you are doing through and can give you that support."

Interviewee VI

My sixth interview was with a 32-year-old white woman who gave birth to her baby in early November of 2020. This was her second pregnancy. She said that because she had been pregnant before, she knew what pregnancy was overall supposed to be like and this second pregnancy was very "different and scary." She found out she was pregnant the first week in March. She said that she was scared to take a pregnancy test because she knew she was most likely pregnant but because COVID-19 was now in the picture as well, she did not know what it would look like being pregnant during a worldwide pandemic. She started working from home the next week and was concerned by the lack of information and research in regards to pregnant women and COVID-19. The place where her husband worked closed and her other child who

was in preschool at the time was now doing school virtually. It was difficult for her to balance all of this—working from home, caring for her other child, and dealing with severe morning sickness. Her first appointment was delayed due to COVID-19 and she was not even sure she should go to that; she also had to go to this appointment alone. Looking back, she says it was even more scary because there was no COVID-19 testing, things were still open, and there were not any mask mandates. After her first appointment, all of the other ones were virtual. She purchased a Doppler so she could hear the baby's heartbeat during these virtual visits. Her pregnancy was low risk so it was possible for her to have these virtual appointments but she had friends whose pregnancy was high risk and she had to go in person to all of her visits. Even though her appointments were virtual, she felt that she received the care that she needed. She did go in person to the 20-week ultrasound and her husband was able to come to this one. At this point, cases numbers were better and so she was a little more relaxed. However, she realized that with her due date being in November, things would probably get worse by then. She also remembered that in the late summer or early fall that the CDC was now saying that pregnant women are a high-risk group and she said this caused her to become anxious and to questions some of the decisions she made over the summer. Then restrictions stared again and she began to worry that she may not be able to have her doula or her husband with her while giving birth. However, he doula reassured her that her hospital would always allow women to have at least one support person with then during the birth. Also in the fall, she and her family had colds and she worried that if she went into labor they may not allow her husband to be with her because he was sick. Luckily, she says her child came a week before her due date and she was able to have both her husband and doula with her. When she arrived at the hospital, she took a COVID-19 test and because she tested negative she was able to have two support people with her. If she had tested positive, the hospital policy would have only allowed her to have one support person. She said that once she got into her room, she did not really think about COVID-19 too much and just focused on having her baby. She credits her overall good birthing experience to several different things:

> "I had a really good provider, I had really good health insurance fortunately and several other resources that were available to me. I know that for a lot of women it's probably a different story. I think also because I had a baby before, it was still scary but it was easier. I knew I was going to be fine, I knew what I was doing. I mean providers were

> figuring it out at the same time too and that's what was scary. They didn't have all the answers. But, overall as terrifying as it was at times, I was pleased with my experience."

Once she returned home, things looked different than they did with her last child. This is what she said about her experience once she returned home with her baby:

> "Once we got home, we haven't had any visitors and don't have a ton of extra help. My mom was her for a while, but it's just not the same. It is a lot more isolating for sure, not being able to have friends over and not going to different places."

Interviewee VII

My seventh interview was with a 29-year-old white woman who gave birth to her baby in mid-November 2020. This was her second pregnancy. As far as prenatal care, she was already not expecting her husband to come to any of her appointments because they have another child and he would most likely stay home to watch them. She said that she really liked her ob-gyn that her care was good overall. The day before she gave birth, she started having contractions late in the evening. She called a friend to come and watch her other child and she and her husband went to the hospital once her contractions became stronger and closer together. Because of COVID-19, her husband was not allowed into triage and could only join her if she was admitted. She ended up being in triage for about an hour while hospital staff monitored her contractions and to see how far she was dilated. Due to the fact that she was only one centimeter dilated at this time and they thought that it was just Braxton Hicks, or false labor, the hospital staff told her that she needed to go home. She said the following about this part of her experience:

> "I promised myself this time around, I would advocate for myself more. But it was hard to do that without my husband because I was in so much pain. I knew I needed to and wanted to stay. I have a very high pain tolerance and I was in a lot of pain. Once I got home, things escalated very quickly to the point where I was vomiting and the contractions were so terrible."

She ended up going back to the hospital a couple hours later. She said that even though things were so intense at this point, she was very hesitant to go back because of the fear of being sent home again. When she did get back to the hospital, she was eight centimeters dilated so things really progressed in those two hours. This is what she said about her experience being at the hospital for the second time:

> "My birth plan didn't go according to plan at all. I really wanted an epidural but because they sent me home, it was too late, because I was eight centimeters and in one push my

> baby was out. And my husband actually almost fainted because he made it right on time for the birth. With COVID-19 restrictions, it made it really difficult and kind of scary to be back there by yourself in so much pain and not having your support system there with you. But my baby came really fast. My contractions started at around 7pm on November 18th and at 1am on November 19th they were born."

She also said that it was very difficult not knowing exactly how COVID-19 impacts pregnant women due to the lack of research on this topic. In addition, she said that if she were still pregnant she would also want to know how the COVID-19 vaccine impacts pregnant women because there is not much information on that either. She really wishes that her husband would have been allowed into triage with her, especially because he was going to be in the delivery room with her anyways. While she understands that the hospital was trying to limit the number of people, she said that doing so should not have been at the expense of her loosing support and someone who could have helped her advocate for herself. In regards to her postpartum experience, she says that a lot of things are very different from when she gave birth to her first child. With so many things being closed, her baby is definitely not experiencing all the different things that her first child was able to as a newborn. She has tried to make the best of the difficult situation and tries to take both of her children outside every week to explore a new park or trail. But it is hard not having much else to do with her children. She is also a licensed psychologist and so has that added perspective on how COVID-19 has impacted pregnant women. This is what she said on this:

> "Something that I know impacted me and lots of other women, based on what I hear in my therapy practice, is the grief and loss of a normal pregnancy experience. Because I was not seeing a lot of people, I felt like a lot of people forgot that I was even pregnant. There was no baby shower and it just didn't feel like it was a celebrated experience. Also, it feels really stressful to have people come over and decided what people you want to be around your baby because you don't really have control over what that other person is doing. I feel very cautious about that and, therefore, it's kind of felt like social support has been lacking in that regard. People call and people text and we did try and do some things socially distanced outdoors. But overall, having a baby during a pandemic is pretty isolating. There are mom groups that are meeting virtually but it just does not seem as personal or supportive as it could be if it were in person."

Interviewee VIII

My eighth interview was with a 33-year-old Filipino woman who was 38 weeks pregnant at the time of the interview. This was her fifth pregnancy. It will be her second birth because she had three miscarriages in the past. She has been going to see the same provider that she had during her first pregnancy. She said that it definitely has been tough being pregnant during a pandemic and she does have a therapist that she sees regularly. Two of her miscarriages occurred back to back last year and so she and her husband were not really trying. When she found out that she was pregnant, she said she had a lot of anxiety, which could have been due hormones of the pandemic in addition to grief from the miscarriages. This is what she said about COVID-19 and pregnancy:

> "Both my husband and I have medical backgrounds, so we are taking it super seriously and we are very cautious. My husband is currently seeing patients and it is his responsibility to not expose our family. The isolation and loneliness is really hard especially in the beginning of my pregnancy. I am really thankful for my therapist because going has helped me to kind of gain perspective and just to be able to talk to somebody. She had diagnosed me with perinatal mood and anxiety disorder, and it just helps to know what you are going through because then I could feel like there was something I could do about it. It never got to the point where I needed medication but I was seeing my therapist via Zoom every few weeks. Now I am committed to it and will be making appointments even after baby just to check in because I in the past I would not go to therapy until it got really bad and so I want to prevent that from happening."

It has also been difficult going to her prenatal appointments because she has a younger child and they are not allowed to come to appointments. Normally, she would be able to be very independent and bring her younger child but now she had to schedule her appointments around having a babysitter. She said that it is also really hard finding a babysitter they trust because of COVID-19. When she went in for her anatomy scan at 20 weeks, her husband could not be with her and he has not been able to see the baby at all. She also shared her birth plan with me. She is a nurse but she said that she went into her first birth really uneducated. She was working full time and did not have the time to take any birthing classes. But this time, she has a very detailed birth plan. With her last child, she chose to be induced and her labor lasted for almost an entire day with 3 hours of pushing. The physician ended up having to use a vacuum and she ended up having a lot of tearing which made her recovery very difficult. She also said that she is pretty

sure she had postpartum anxiety. This time around, she was a stay at home mom and was really trying to educate herself on her options. She had taken a birth class and is watching a lot of videos by a birthing doula. The last time, she just really trusted her ob-gyn and did not take the time to advocate for herself. She said that she learned from her recent education that women's bodies are built to birth and no not force it or rush it as this can lead to more complications. Now, she was just trying to be more patient and just waiting until her body and the baby are ready. Her birth plan overall was very flexible and if she needed interventions she was fine with that as long as they are medically necessary. However, now she felt much more like she could advocate for herself and she wanted to have as natural and unmediated birth as possible. Because she had chosen to induce the first time, she did not feel like she really truly experienced birthing and so she was nervous because it is almost like she is doing it for the first time as she was waiting for it to just happen naturally. She does not know what it is like for her water to break or what it is like to feel normal contractions so she is really nervous but hoped it will all go well.

Interviewee IX

My ninth interview was with a 36-year-old Pakistani woman who was 31 weeks pregnant at the time of the interview. This was her first pregnancy. She said that this had been a very emotional pregnancy for her because:

> "I planned this pregnancy because my mother was very sick and I kind of though, that the baby would help keep her alive. I wasn't so sure I wanted kids but she really wanted to be a grandma and then I found out I was pregnant a month after she died. So that was very bittersweet for me. I say the baby saved my life because I can't drink my problems away, I have to eat healthy. I own my own business and so I have to really work hard to get things ready for the baby. So, it has been very emotional. My doctor was actually concerned that I was depressed but I was like 'I won a business during COVID-19 and my mom died, how could I not be depressed?' I have started therapy which has been helpful."

She also took a birthing class which has made her completely change her birth plan from a scheduled C section to an all-natural, drug free birth. She wished that it was in person though because it is difficult to build relationships and friendships with other expecting moms who she could then lean on. It had also been difficult for her not being able to have her husband at her appointments. She was also unable to have a baby shower and has been unable to visit with her cousins who are also pregnant at the same time. Overall, she said that it has been very lonely and

has not been able to be with her close friends or family at all during her pregnancy, which she said both upsets those close to her and also made her sad. Therapy was key in terms of coping while being pregnant during COVID-19. She also deals with some anxiety due to family related issues that she has also been able to talk about during therapy. She also had to close her shop and now uses a delivery service to keep her business running because where she lives the "mask is very political" and so she felt unsafe keeping it open during this time. She also was fearful of having a baby for a while and so she definitely was feeling extra fearful because of the pandemic. This was one of the reasons she hired her birthing teacher as a doula and tries to keep up to date on what was happening at the hospital she was planning on giving birth at. She also shared her birth plan with me. She planned to labor at home for as long as she can until her contractions were more intense and then she would head to the hospital She also wanted to use candles and a diffuser for a calming effect and did not want intermittent testing or to be connected to the fetal monitor. She also wanted to avoid any drugs but she was all right with having an epidural if she ended up wanting one and requested a tub to be in her room. Additionally, she did not want to labor on her back at all but rather on her side or squatting. When the baby was born, she wanted immediate skin to skin contact and delayed cord clamping and if the baby is delivered by C section, she wanted the baby to have skin to skin contact with her husband. As far as prepping for the baby, she was doing exercises every day that her doula recommended. She also said she was very frustrated by the lack of research on pregnant women and COVID-19, especially because of how vulnerable a population pregnant women are in regards to contracting the illness, and was thankful that I was collecting the stories of pregnant women.

Interviewee X

My tenth interview was with a 32-year-old white woman who gave birth to her baby in the end of June of 2020. This was her first pregnancy. She found out she was pregnant before COVID-19 and so her initial appointments were pretty normal. Her husband was able to come to those but once COVID-19 came to the United States, she was not allowed to go to in person appointments as frequently and had to go alone. Additionally, with COVID-19 now it the picture, this caused a lot of "anxiety" as these were crucial times to ensure her baby's well-being and there was no real information on how to best deal with being pregnant during this time. She was also diagnosed with gestational diabetes even though she was eating well and exercising and

so she needed insulin. She explained that her fasting numbers were bad and there was nothing she could have really done differently as it is all based on the placental. This meant that she did have to go to the doctor a little more towards the end of her pregnancy. She said that because her husband was unable to come to almost all of her ultrasounds, she was very grateful for the appointments that happened prior to COVID-19 that he was able to attend. She also recognized that for many women, the reality was that they had to go to all of their pre-natal appointments alone. This was what she said on this part of her experience.

> "That was really difficult and hard, having to go alone. I was really fortunate that at least by ob-gyn and the people that I saw for the gestational diabetes were really kind and considerate. They always made sure that they printed off photos so I could bring them home for my husband and my ob-gyn let me record the heartbeat so he could hear that too. Before all this, most times if a dad wanted to be there, they were able to come. And so that was very unfortunate."

She also said that she hired a doula in January of 2020. However, she was concerned that her doula would not be able to come to the hospital and help her through the birthing process due to COVID-19 restrictions. However, having a doula was very helpful and useful throughout her pregnancy even though it was "crushing" and caused her "anxiety" thinking that her doula and potentially her husband would not be able to be with her during the birth. Due to the nature of her work, she stopped working during the shutdown in Michigan for about 10 weeks. She also had not been able to return to work because by the time things opened back up she was too far along and know she doesn't believe it would be safe for her to go back to work. All of her birthing classes were held virtually which she said were really thought out and well put together. The hospital also sent her videos of what to expect during the birth which she said was very helpful to have as much information as possible during this time. Her baby was born at the end of June which was just after most things had reopened in Michigan and she was very thankful that her hospital also started allowing two support people to be in the room with birthing mothers. Her water broke at home at night and she left to go to the hospital about an hour later. She got to triage they checked to see if her water broke and then strapped her to the fetal monitor. There weren't any contractions happening at that point but they did show up on the monitor so they were very minor. Hospital staff monitored her for about 30 minutes in triage where she also received a COVID-19 test which was negative. She was then check into her room and she was trying to fall asleep when super strong contractions started at about 1 in the

morning. Most of the monitoring happened remotely and a nurse only came to check in on her every couple of hours to make sure everything was fine. Because she tested negative for COVID-19, she didn't have to wear a mask while laboring. They also didn't require her husband to wear his mask while hospital staff was not in the room but she said he basically kept it on the entire time. Her labor progressed pretty quickly and the contractions were very painful. Her doula arrived at around 4 in the morning and helped her by applying a counter pressure on her back, making the pain a lot more bearable. An hour or so later a resident came in to check how far she was dilated and she was only dilated about 3 centimeters. She immediately felt defeated and thought that it was going to take "forever." About a half an hour later, she stared having pushing contractions when it was just her, her husband, and her doula in the room. Her doula rushed to push the nurse call button. She had no idea the baby could potentially be coming so fast because she was just 3 centimeters dilated 30 minutes prior. The nurse and doctor come in and check to see how far along she was and she was now 9.5 centimeters dilated. In another half an hour, she was at 10 centimeters dilated. Then suddenly the room was full of people, because no one expected her to deliver so quickly. She had her husband on one side and her doula on the other support her while pushing. Looking back, she said it was very said because she was unable to have her sister or other family there with her. This was what she said on this:

> "I never got any photos or video which I really wanted because the whole time I was in labor I couldn't not have my hands on my husband. It makes me really sad because if my sister would have been there, she would have been the one taking photos and videos. So, it like kind of broke my heart that I don't have any of that."

Her baby came after just three pushes. She felt very fortunate to have an unmediated birth that was free virtually from complications. They put her baby right on her chest after they were born. It did take an extra-long time for her to birth the placenta and her doctor seemed to be quite concerned about this progress but luckily, she was able to deliver all of it. When she left the delivery ward to go to recovery, they played music throughout the hospital announcing that a new baby was born. Once she realized it was for her and her new baby, she got "super emotional." Once she got to the recovery room, she says she was pretty much left alone except for a nurse who would come in every once in a while. However, she said that no one really checked up on her and this was quite upsetting because she had just given birth to a baby and thought that there should have been more care and consideration given to her as well. She said

that there was really no reassurance that she was going to be all right and especially as a first-time mom, this was not very comforting. The next day, she left the hospital and came home with her baby and husband. They basically quarantined when they returned home because of COVID-19 and she said it was difficult because she basically had no help. Her sister did come over a few times because she was in their bubble and was not working. However, she said it was a very difficult period in time to be a first-time mom:

> "I wasn't around other moms; my child was not around other babies. I constantly though like is this normal? Am I doing this right? Am I doing this wrong? I really didn't know and so it was really hard in the beginning. I was also very lonely. Being a first-time mom no one really prepares you for how lonely it is, but then, on top of it all there was a pandemic and the isolation associated with that. It's extraordinarily lonely. I ended up going to therapy because of how I was feeling. We tried to get pregnant for two years and I had all these expectations of what it was going to be like being pregnant and what it was going to be like being a mom. And COVID-19 kind of stole all of that from me. I didn't get to have a baby shower, I didn't get to have my mom visit me after I gave birth, I didn't get to have my friends come over and meet the baby. No one other than myself, my mom, my husband, and my sister have held my baby."

However, she did say that it was nice to have a lot of time at home with her child. But on the other hand, she does miss the sense of identity she had from her job. It also would have helped her and her husband financially if she was able to go back to work for even a couple days of week as well as her mental well-being. Overall, she says it was a difficult experience and feels she missed out on a lot of the "little things" that would have been a big deal both for her and her child.

Interviewee XI

My eleventh interview was with a 31-year-old white woman who gave birth to her baby on in mid-August of 2020. This was her second pregnancy. She was also a midwife herself. She did not feel well during her first trimester, as she did during her last pregnancy. She stated that everything was going pretty much the same until COVID-19 came into the picture. It was very "nerve racking" for her, being pregnant and not really knowing what would be happening in regards to that. Additionally, the time that she was at in her pregnancy, around 15 weeks, was very important developmentally and so it was scary not knowing the ways in which the virus could potentially affect her baby. She normally worked nights at the hospital but they switched

her to days because they didn't want her to ever been working alone. Her coworkers were very supportive and helped her to limit her exposure as much as possible and she would only see patients if they were COVID-19 negative. She was due for her anatomy scan at the end of March, which was before mask mandates and more serious COVID-19 protocol. She said this about the experience:

> "The anatomy scan is like the most exciting appointment in your pregnancy. You get to find out what you're having if you want, you get to see the baby—it looks like a baby—and I wanted my daughter to come too. The night before they call us and said that I was no longer able to bring any visitors to the appointment, that I had to go by myself. And I just started bawling, I was like 'I won't want to do this by myself.' I work in healthcare, I work in labor and delivery. I know what it is going to be like. But I didn't want to go by myself and that was really upsetting."

When she went the next day, no one in the office was wearing a mask. Once she got into her exam room, she noticed that her ultrasound tech was coughing a lot and she was wondering to herself why they were still at work. They had significantly cut down the number of ultrasounds they were doing at the clinic and so she knew that if the tech were to have called in sick someone else could have performed the ultrasound instead. She went home after the appointment, not happy with the experience. However, about a week later she was working and about to deliver someone else's baby and she gets a phone call. They said that her ultrasound tech tested positive for COVID-19 and that she needed to quarantine for two weeks. She told them that she was at work and literally about to catch someone's baby and they responded that they didn't know she was a provider. She was unsure what to do next because she had been taking care of patients for the past five days since the appointment and at the time it was still not mandatory to wear a mask which she said seems crazy looking back. However, she was able to get tested before she went home and had to wait for five days to get her results. This was how she described this period of time:

> "It was very, very scary and in that process, I somehow remembered, when I was in midwifery school, I wanted to have a home birth. I was like I never want to go to an appointment again, I don't want to go to work, I don't want to get sick, I don't want to hurt this baby. Luckily enough my test came back negative and I had to quarantine for seven more days. But in the process, I was like 'I should have a home birth." I always wanted to and now it's like I don't feel safe going to work let alone being the patient and

> going to the hospital. Even though I tell all my patients it's great to have a baby in the hospital but it's very different during a pandemic."

In addition to planning her own home birth, she transferred to a home birthing practice and became a home birth midwife. She said that this was "an absolutely wonderful experience." She conducted all of her other prenatal visits virtually and purchased her own blood pressure cuff and Doppler ultrasound. Her own midwife only came and saw her a couple times to her house and she was getting tested weekly and wearing a mask. The rest of her pregnancy was wonderful and it gave her a lot of peace of mind knowing that she did not have to go to the hospital. Then, one day before her due date she woke up and knew that she was in labor. It was fairly early in the day and so her mom came and picked up her other child and she decided to go into work. She did not say anything to her mom but she did tell her husband. He wondered if she should maybe not go into work but she responded that if she does stay home and doesn't have the baby, she would be devastated. So, she did go onto work and saw a few patients but by lunch she was very uncomfortable and decided to go home. Once, she got home she had her baby in just a couple hours and it was a "wonderful" experience. In regards to her post-partum experiences she said it was very different from that of her first child. She and her husband traveled a lot with their first child during the first 18 months of their life because none of their parents lived locally. However, the baby she had recently has not even been to a grocery store. They were born in her house and have only ever gone to the pediatrician a few times. She wonders if this will at all affect them developmentally. Additionally, now that both she and her husband are back to work they occasionally have a babysitter who was vaccinated and wears a mask watch the kids but they do not have the same day to day support that they did with their first child. She made the decision to get vaccinated herself and because she is breastfeeding, she hoped that her newborn was getting some COVID-19 antibodies. Overall, she just says that it was "just a lot different than the first time around."