Abstract

Purpose: To explore the experiences of pregnant women who were living in the United States during the COVID-19 pandemic.

Study Design and Methods: Using a qualitative design, we used data obtained from women in their second or third trimester of pregnancy who participated in the Perinatal Experiences and COVID-19 Effects (PEACE) Study from May 21 to December 22, 2020.

Results: 361 of 408 pregnant women (88%) who participated in the PEACE study during that timeframe provided narrative comments. Participants had a mean age of 33.2 years (SD = 3.7) with a high percentage of White women (91.4%). At the time of participation, women were between 2.4 and 8.6 months into the COVID-19 pandemic. Just under half were pregnant for the first time (n = 177). Content analysis of responses revealed an overall sense of "unmet expectations" within two themes involving the role of relationships: 1) *losing the experience of going through pregnancy together* and 2) *loss of social support and expected relationship building.* Differences were noted between participants giving birth for the first time and participants with other children at home.

Clinical Implications: This study offers insight for nurses and other clinicians taking care of pregnant women during times of public health crises and provides implications for the care of women as the pandemic continues. Nurses can help women plan for future health care changes that may disrupt their support needs as seen during the COVID-19 pandemic. Nurses should also be aware of possible enduring effects of prenatal unmet needs on later outcomes.

Key words: COVID-19; Mental health; Nursing; Pandemics; Pregnancy; Social isolation; Social support.

UNMET PRENATAL EXPECTATIONS DURING THE COVID-19 PANDEMIC

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he COVID-19 pandemic is a public health crisis that has dramatically affected the pregnancy experience (Breman et al., 2021; Burgess et al., 2021). To accommodate social distancing mandates, prenatal care guidelines were developed (American College of Obstetricians and Gynecologists, 2020; Centers for Disease Control and Prevention, 2020). Health care delivery rapidly shifted to a virtual format including phone and on-line video visits to minimize maternal-fetal COVID-19 exposure and infection (Peahl et al., 2020).

Accumulating worldwide research has shed light on the consequences of health care changes during COVID-19 on experiences of pregnant women. Data from the United States show emotional consequences related to the sudden shift from in-person to virtual health care delivery (Javaid et al., 2021). Other pandemic-based changes in life have resulted in diminished support from significant others and family, as reported by pregnant women worldwide (Meaney et al., 2021; Mortazavi & Ghardashi, 2021). One of the most significant changes to prenatal care during the pandemic is the limiting of fathers and partners in prenatal appointments, despite the general recommendation for involving them in the prenatal care experience (Lista & Bresesti, 2020). Women have also perceived limited access to support (Javaid et al.; Meaney et al.; Mortazavi & Ghardashi). Qualitative studies that included women who were pregnant during the pandemic suggest that women have felt "uncelebrated" (Meaney et al.), have experienced fear, uncertainty, sadness (Ravaldi et al., 2021), as well as abandonment, isolation, and loneliness (Javaid et al.; Meaney et al.; Mortazavi & Ghardashi; Nanjundaswamy et al., 2020; Perzow et al., 2021; Ravaldi et al.; Sweet et al., 2021). For this study, we sought to explore experiences of women who were living in the United States and pregnant during the COVID-19 pandemic, beyond quantitative survey data collected in our larger study (Liu et al., 2021).

Study Design and Methods

Qualitative data for this study were drawn from the Perinatal Experiences and COVID-19 Effects (PEACE) study (www.peacestudy2020.com), an online survey administered to U.S. pregnant and

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postpartum women during the COVID-19 pandemic. Human subject approval and participant informed consent were obtained prior to data collection. Study eligibility and recruitment has been described elsewhere (Liu et al., 2021). Briefly, women were recruited using convenience and snowball sampling; flyers were disseminated via social media and email listservs. This analysis includes women who were 18 years or older, indicated they were pregnant at the time of data collection, and who responded to the open-ended portion of our survey from May 21 to December 22, 2020 answering the following question, "Are there COVID-19-related experiences in the survey that we missed that you wish to describe?"

Data Analysis

We used descriptive statistics to analyze participant sociodemographic characteristics. Qualitative data were analyzed using content analysis, the subjective interpretation of text content through a systematic classification process of coding and identifying themes or patterns (Hsieh & Shannon, 2005). A text document was compiled of all narrative responses. To reduce unintentional bias, the first (DG) and second (LD) authors individually reviewed the document, highlighting words, phrases, and making notes on initial impressions. Then, authors identified themes and subthemes, comparing and contrasting notes to form a holistic understanding of experiences of women

who were pregnant during the COVID-19 pandemic. In a subsequent reading, initial codes within responses were named and codes were linked to related categories (Krippendorff, 2019).

Results

Participant Characteristics

Of the 408 women who responded to the online survey, 88% (n = 361) provided answers to the open-ended question. Self-reported data indicated the majority of participants were White (91.4%), with an average age of 33.2 (SD = 3.7) years and had completed the survey 2.4 to 8.6 months into the COVID-19 pandemic. Approximately half (49%, n = 177) were pregnant for the first time (Table 1).

Qualitative Results Key Findings

Content analysis of responses revealed an overall sense of *unmet expectations* within two themes involving losses with respect to relationships: 1) *losing the experience of going through pregnancy together* and 2) *loss of social*

Women who were pregnant during the pandemic described an overall theme of "unmet expectations."



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support and expected relationship building. We noted differences within the themes between women with first-time pregnancies and women with other children at home. The following sections describe the two themes within the overall context of unmet expectations and parity.

Losing the Experience of Going Through Pregnancy Together

Pregnancy can result in a cascade of emotions for couples (Lilius, 2020). Women desire and perceive a sense of *togetherness* in pregnancy when the significant other attends prenatal appointments (Alio et al., 2013) and the fast-spreading COVID-19 pandemic provided little time for adjusting expectations.

Women Having Their First Baby. Women having their first baby were concerned that significant others were not connected to the pregnancy due to being excluded from prenatal appointments. For example, I feel disconnected from my husband because he cannot join me at prenatal visits. The pregnancy feels less "real" for him and it creates a lot of anxiety and sadness for me not having him there for our first. I think this makes us both feel less connected to the baby.

Sharing prenatal milestones such as hearing the fetal heart or seeing the first ultrasound for the first time establishes the foundation and support needs of the couple's prenatal journey; however, the COVID-19 pandemic changed this expected prenatal experience. For example, The hardest part of being pregnant during this pandemic is the fact that my husband cannot attend any appointments with me. He's unable to experience seeing the ultrasounds with me as first-time parents. This is the only

TABLE 1. PARTICIPANT CHARACTERISTICS (N = 361)

Characteristic	N (%)
Maternal Race	
White	330 (91.4)
Asian or Pacific Islander	14 (3.9)
Hispanic or Latina	10 (2.8)
Black or African American	3 (0.8)
Other	4 (1.1)
Occupation	
Business	140 (38.8)
Education	55 (15.2)
Government	10 (2.8)
Health care	132 (36.6)
Stay-at-home parent/Other	24 (6.6)
Pregnancy Characteristics	
First Pregnancy	
Yes	177 (49)
Pregnancy Trimester	
Second	135 (37.4)
Third	226 (62.6)

time we'll be able to experience this joy together and this experience has been stripped from us.

Mothers with Children at Home. Exclusion of significant others from prenatal care was concerning for women with other children at home. Women reported feeling as though their significant others were not as excited or engaged with this pregnancy compared with previous pregnancy in non-COVID times, Lack of joy in anticipating the new baby. My husband feeling left out in my prenatal care (has not been able to go to any appointments or ultrasounds) and has expressed not feeling excited about it as he did with our first child.

Loss of Social Support and Expected Relationship Building Pregnancy is often a time of great joy and excitement when women reach out to family and friends for knowledge, wisdom, and support. Social distancing due to COVID-19 disrupted the traditional way pregnant women sought social support, specifically, emotional, instrumental, and informational support (Heany & Israel, 2008).

Women Having their First Baby. An overall sense of loss from not experiencing a normal pregnancy was prevalent within the narratives. For example, I feel like my first pregnancy has been robbed from the joys that come with it, like having my partner or family member come to my ultrasound appointments, a gender reveal party, or a baby shower.

Mothers with Children at Home. Women with other children at home were able to draw upon their previous non-COVID pregnancy experiences and describe differences. For example, With my first child I really benefited from the support of lactation consultants, new mom groups, yoga, and mom friends. With social distancing I feel like I get little to none of those things and it's making this pregnancy more emotional and more difficult for me.

Participants described missing out on family support during pregnancy and on bonding opportunities, as one participant stated, The worst thing for me has been my family missing out on experiencing my pregnancy with me, not having them present for the birth in the hospital, and possibly not being able to let them meet/hold/kiss the baby after he is born. Second-time mothers described difficulties being pregnant while managing home and work responsibilities, Lack of childcare while working full-time and being pregnant has caused a lot of anxiety, stress and impacted how much I can focus on this pregnancy. Also, the fact that my family will not be able to fly and see me pregnant or this baby for who knows how long has taken away the experience of being pregnant.

Other participants were concerned about missing out on support for themselves as well as support they had been counting on for childcare, My in-laws are overseas and we do not know when we will be able to see them, which has been especially hard for my husband in general. We are also both worried about losing our jobs and trying to navigate parental leave and child care for two children.

Participants described challenges of pregnancy during the pandemic, having to strike a fine balance between

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reducing risk of COVID-19 exposure and possibly infection, with companionship, *Pregnancy during* COVID-19 has shifted my overall sense of support from extended family and friends due to social distancing and shelter in place guidelines. I want to be safe, but not feel so alone.

Discussion

Our results illustrate the many complexities of navigating pregnancy during a pandemic and necessity of having adequate support during pregnancy. These findings are similar to the experiences of other pregnant women during the COVID-19 pandemic, such as missing out on social support (Javaid et al., 2021; Meaney et al., 2021; Sweet et al., 2021; Vasilevski et al., 2021), grief and loss due to missed prenatal appointments, and cancellation of childbirth classes (Meaney et al.; Mortazavi & Ghardashi, 2021). It appears that an underlying concept for these concerns, as evidenced by the two salient themes that were identified in our analysis, is a sense of unmet expectations in one's experience of having a baby due to the pandemic. However, the two themes emphasized importance of relationships, whether it be supporting mothers directly or importance of going through pregnancy as a shared experience.

Disruption due to the pandemic may have had a direct effect on mothers given the lack of social support available to them during the pandemic, but also a potential indirect effect on mothers vis-à-vis the inability for partners to engage with the pregnancy as was expected. Consistent with previous literature (Javaid et al., 2021; Sweet et al., 2021; Vasilevski et al., 2021), disruption to systems that may facilitate partner involvement such as attending prenatal appointments, may have interfered with milestone moments in a pregnancy that are meaningful and important for mothers to ensure development of bonding between themselves, their partner, and their anticipated infant. Feeling in control during pregnancy is important for women for a multitude of reasons, including ensuring the health and well-being of themselves, the developing fetus, and other family members.

Unmet expectations are not limited to how the pandemic changed social support or led to altered prenatal appointments experiences. They include the salience of the desired connection through relationships during the prenatal period, given the sense of loss expressed by mothers in our study. It is important to note that there are a range of adversities that have resulted from the pandemic including those that may be traumatic such as illness or death of loved ones, or maternal-infant infections. Participating in our study provided a space for women to share and allowed us to document the full breadth of their experiences. Capturing these experiences, even those considered minor, can have major consequences. Accumulation of such stressors during this period can also have problematic outcomes (Goyal & Selix, 2021; Liu & Doan, 2020; Liu & Tronick, 2013).

Limitations

The relatively low rate of non-White participants in this study is a limitation that characterizes many of the other

large scale online-based survey studies conducted during the perinatal period. This low rate deserves greater attention and points to the urgency in developing strategies to engage hard-to-reach populations during crises, and how best to do so in a timely fashion, even among researchers who have an existing background on addressing perinatal disparities. Researchers should consider social determinants of health and focus on women from varied cultural groups, ethnicity, educational levels, and immigrant and refugee status. It is possible that other themes beyond unmet expectations and social support would be identified in a more diverse population because unemployment and financial loss have disproportionately affected women and immigrants during the pandemic (Pew Research Center, 2020). Perinatal organizations and funding agencies must invest in viable recruitment strategies on an ongoing basis. Future researchers must develop strategies to engage women who may be experiencing so much stress that they cannot respond to an online survey, and who are likely to have different experiences, perhaps those far more significant than the unmet expectations described here.

Clinical Implications

Clinical nursing implications from our findings reinforce the multitude of emotional experiences and changes to structural support that pregnant women faced during the COVID-19 pandemic, at an already vulnerable time. Removal of fathers and partners from prenatal care has changed the prenatal journey from one that couples most often experience together to one where fathers are left to watch on the sidelines (Lista & Bresesti, 2020). Nurses can advocate for their patients and help identify creative ways for women and their partners to connect during prenatal care. Examples include, the use of technology such as video calls, setting up interactive online virtual sessions during prenatal visits, or recording the fetal heartbeat for partners to listen to later.

Acknowledging the disappointment from the experience of loss is an important way to validate women facing circumstances that are unexpected and not under their control. Emphasizing areas that are within the woman's control may be one way to reframe one's understanding of the situation, and importantly help women regain control over their circumstances. Our data suggest that relationships matter to women, not just their own relationships, but how others in their family develop a relationship with the baby. Future research to identify maternal needs during times of national crisis and to inform how best to equip women with a sense of safety and control with their pregnancy and family relationships are needed to inform recommendations for nursing care.

The COVID-19 pandemic remains a concern worldwide and to the extent that other pandemics occur in the future, it is incumbent on health care providers and nurses to help pregnant women have the support they need during crisis situations that interfere with the expected experience of pregnancy. For nurses to be effective patient advocates, hospitals need to provide professional support for nurses to build coping skills and resilience given COVID-19-related

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CLINICAL IMPLICATIONS

- Nurses and other clinicians caring for pregnant women should consider the possibility of enduring effects of women's experiences during the pandemic on later outcomes.
- Assessing women's support needs during pregnancy can help identify support priorities and identify women in need of extra emotional support.
- Nurses caring for childbearing women should be aware
 of how public health crises disrupt health care delivery
 and policies, and how processes that exclude partners
 and support persons need to be reconsidered.
- Nurses must advocate for their patient's social supports and the inclusion of family members to experience the journey together.

stress and increased demands, to mitigate compassion fatigue and burnout toll on empathy (Bredicean et al., 2021; Carver, 2021). •

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