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Increased traumatic childbirth and postpartum depression and lack of exclusive breastfeeding in Black and Latinx individuals

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Keywords

breastfeeding; childbirth trauma; coronavirus pandemic; mental health; postpartum depression; postpartum: postpartum PTSD; unplanned cesarean

1 | INTRODUCTION

Maternal outcomes, including psychiatric morbidity, have largely worsened during the coronavirus (COVID-19) pandemic.[1,2] Although unrepresented minorities have been subject to reduced access to perinatal health care during COVID-19,[3] knowledge of mental and related breastfeeding outcomes among minorities is lacking. Using propensity score matching, we matched Black and Hispanic individuals who gave birth during the pandemic with non-Hispanic White women on sociodemographic backgrounds and compared their childbirth outcomes.

2 | MATERIALS AND METHODS

This anonymous study survey was launched on April 2, 2020.[1,4] Here we report on 236 minority women (Black/African-American or Hispanic/Latinx) and 236 non-Hispanic White

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AUTHOR CONTRIBUTIONS

A.I. contributed to the writing of the article and conducted literature review. T.E. conducted the statistical analysis, wrote the Results section, and contributed to the conceptualization of the study. E.Z. contributed to the writing of the article and conducted literature review. S.C. conducted data cleaning and coding and contributed to the writing of the Methods section. A.K. contributed to the final editing of the article. S.D. is the principal investigator of the COVID-19 maternal wellness research project. She collected the data, conceptualized the study, and wrote the article.

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

women, all of whom gave birth during the pandemic and were negative for COVID-19 infection. We collected information about their childbirth, maternal-infant behaviors, and trauma (abuse) history and mental health. The groups were matched on demographic factors (i.e., maternal age, marital, employment, education, and income status, and country of residence), month postpartum, and survey completion date. The Mass General Brigham Human Research Committee granted the study exempt. The estimation algorithm was logistic regression, and the matching algorithm was nearest neighbor matching with caliper of 0.2 as recommended.[5] The Peritraumatic Distress Inventory (PDI) was used to assess acute traumatic stress to childbirth[6] and the Edinburgh Postnatal Depression Scale (EPDS) was used to measure postpartum depression symptoms.[7]

3 | RESULTS

Participants were on average 2 months postpartum (53.2% primiparas; average maternal age, 31 years; 95.6% ≥37 gestational week; 68.2% vaginal delivery). Chi-square tests for independence of measures (Table 1) showed that the minority group were three times more likely to report clinically-relevant acute traumatic stress to childbirth and two times more likely to report postpartum depression than non-Hispanic White women. For trauma-exposed individuals, stress symptoms at this level are indicative of risk for post-traumatic stress disorder.[8] Logistic regressions revealed that these group differences remained after controlling for mental health and abuse history, prior pregnancy complications (i.e., miscarriage, stillbirth, premature birth), and complications associated with recent delivery (e.g., unplanned cesarean, obstetrical complications, and neonatal intense care unit admission), OR, 2.9; 95% CI, 1.69–5.10 [$P < 0.001$] for acute stress, and OR, 1.97; 95% CI, 1.29–3.04 [$P < 0.01$] for postpartum depression. Minorities also had more incidences of unplanned cesarean and fewer incidences of immediate mother-infant bonding behaviors. Other birth-related factors did not differ.

4 | DISCUSSION

We observed ethnic and racial disparities in postpartum mental health that are not explained by sociodemographics or stressors in childbirth. Structural inequities and racism are implicated in health inequities and may contribute to negative maternal outcomes by functioning as psychosocial stressors. [10] These findings warrant promoting successful postpartum coping strategies in vulnerable populations.

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DATA AVAILABILITY STATEMENT

Pending acceptance, we will finalize the best way to share the data.

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TABLE 1

Prevalence of childbirth outcomes by race and ethnic affiliation

	Non-Hispanic White		Black/African-American or Latinx/Hispanic			
	No.	**%**	**No.**	**%**	**χ^2**	**OR (95% CI)**
Acute stress in childbirth	29	13.3	58	29.1	14.87***	2.67 (1.59–4.5)
Postpartum depression	72	31.2	97	45.1	8.62**	1.81 (1.21–2.72)
Rooming-in	225	95.3	212	89.8	4.44**	0.43 (0.19–0.94)
Mode of delivery						
Natural	44	18.6	38	16.2	12.91*	0.84 (0.50–1.39)
Vaginal	106	44.9	122	51.7		1.31 (0.90–1.92)
Assisted	10	4.2	2	0.8		0.19 (0.02–0.93)*
Planned cesarean	22	9.3	32	13.6		1.52 (0.83–2.85)
Unplanned cesarean	38	16.1	58	24.6		1.70 (1.05–2.76)*
Skin-to-skin contact	218	92.4	201	85.2	5.44*	0.47 (0.24–0.89)
Breastfeeding	151	95.3	212	89.8	4.27*	0.67 (0.45–0.98)
Obstetrics complication	14	18.6	37	15.7	0.54	0.81 (0.49–1.35)
Preterm birth	19	8.1	20	8.5	0.00	1.06 (0.52–2.17)
NICU admission	20	8.5	25	10.6	0.39	1.28 (0.66–2.51)
Induction medication	124	52.5	129	54.7	0.14	1.08 (0.75–1.59)

Note: Acute stress in childbirth refers to clinically significant symptoms during and/or immediately following childbirth (Peritraumatic Distress Inventory ≥ 17), and postpartum depression refers to probable postpartum depression (Edinburgh Postnatal Depression Scales ≥ 12)[9]. Breastfeeding indicates exclusive feeding versus other; induction, use of medication to induce labor; NICU, neonatal intensive care unit; preterm birth, delivery <37 gestational weeks. Information about ethnic and racial status was collected using a single item according to the question "Which of the options best describes you?". Responses were grouped into minority (Black or African American; Hispanic or Latinx) or no minority (non-Hispanic White). Fisher exact test was used to estimate significance; odds ratio (OR) of condition given group affiliation; the 95% confidence intervals (CIs) for ORs are presented in parenthesis.

*$P < 0.05$.;

**$P < 0.01$.;

*** $P < 0.001$.