

# Racial inequities in the course of treating perinatal mental health challenges: Results from listening to mothers in California

Eugene Declercq PhD<sup>1</sup>  | Emily Feinberg ScD, CPNP<sup>2</sup> | Candice Belanoff ScD, MPH<sup>1</sup>

<sup>1</sup>Boston University School of Public Health, Boston, MA, USA

<sup>2</sup>Division of General Pediatrics, Boston University School of Medicine, Boston, MA, USA

## Correspondence

Eugene Declercq, Community Health Sciences CT 430, Boston University School of Public Health, 801 Massachusetts Ave., Boston, MA 02118, USA.  
Email: declercq@bu.edu

## Funding information

This research was supported by a grant (G-30806) from the California Health Care Foundation

## Abstract

**Background:** Concern with depression during the perinatal period has resulted in multiple states enacting legislation to require universal screening of mothers for postpartum depression. Despite this concern, rates of women receiving mental health counseling during pregnancy and postpartum remain low. This study examines factors, especially inequities in race/ethnicity, associated with receiving perinatal mental health counseling.

**Methods:** This study draws on data from the Listening to Mothers in California survey of 2539 women, based on a representative sample of birth certificate files of women who gave birth in 2016. The survey included a series of mental health questions, based on the 4-item Patient Health Questionnaire (PHQ-4), and questions on the receipt of counseling, whether a practitioner asked respondents about their mental health, and whether the respondent was taking medications for anxiety or depression.

**Results:** We found non-Latina Black women to experience both higher rates of prenatal depressive symptoms and significantly lower use of postpartum counseling services and medications than non-Latina White women. Among women with depressive symptoms, those asked by a practitioner about their mental health status reported a 46% rate of counseling compared with 20% who were not asked, and in a multivariable analysis, those asked were almost six times more likely (aOR 5.96; 95% CI 1.6-21.7) to report counseling.

**Discussion:** These findings lend evidence to those advocating for state laws requiring universal screening for depressive symptoms to reduce inequities and help address the underuse of counseling services among all women with depressive symptoms, particularly women of color.

## KEYWORDS

perinatal mental health, perinatal mental health counseling, postpartum depression

## 1 | INTRODUCTION

Concern with depression during the perinatal period has resulted in multiple states enacting legislation to require or

support universal screening of new mothers for postpartum depression.<sup>1</sup> A cross-national meta-analysis of data from 56 countries found a global prevalence of postpartum depression, based on the Edinburgh Post-Partum Depression Scale,

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2021 The Authors. *Birth* published by Wiley Periodicals LLC.

of 17.7%, with extraordinary variation from 3% (Singapore) to 38% (Chile).<sup>2</sup> In the United States, estimates range widely across states, but a summary of data from the Pregnancy Risk Assessment Monitoring System (PRAMS) described a self-reported depression prevalence of 12.0% during pregnancy and 12.5% postpartum in 2017.<sup>3</sup> In California, the rate of self-reported symptoms of depression for 2013-2015 among women surveyed on average 4 months after birth was 14.1% at any time during pregnancy and 13.5% at any time postpartum.<sup>4</sup> Factors identified in individual studies as contributing to higher rates of perinatal depression included non-White race, cesarean birth, and nulliparity,<sup>5</sup> and in a study of Latina women in rural California, postpartum unemployment.<sup>6</sup>

Despite the concern from policymakers and clinicians with perinatal depression, rates of women receiving mental health counseling and support during pregnancy and postpartum remain low. Multiple barriers have been noted, including limited mental health treatment practitioners, lack of training among obstetric practitioners, and stigma associated with depression,<sup>7</sup> with one study describing a “treatment cascade” of barriers that contribute to underuse.<sup>8</sup> These barriers do not affect all women equally, with an earlier study finding those who are on low income and on public insurance and who are women of color more likely to find challenges in accessing services.<sup>9</sup>

This study draws on a large representative 2016 survey of California childbearing women to examine factors associated with receiving mental health counseling and support during the prenatal and postpartum periods, with particular attention to inequities in race/ethnicity, insurance status, and the relationship to practitioner inquiry about depressive symptoms.

## 2 | METHODS

This study analyzes data from the Listening to Mothers in California survey of 2539 women who gave birth between September and December 2016. The sample was drawn from a representative sample of birth certificate files. The survey excluded women younger than 18, women with out-of-hospital births, women with multiple births and nonresidents of California, while oversampling Black women, women with midwifery-attended births, and women with vaginal birth after cesarean, to allow analysis of those subgroups. The data were weighted to represent all women who gave birth in California in 2016, including a correction for oversampled groups, using the 2016 Birth Statistical Master File of all California births. Despite the exclusions, the sample results closely align with statewide results on most variables when compared to statewide birth data for 2016.<sup>10</sup>

The questionnaire took approximately 30 minutes to complete in English or Spanish by the women themselves using any electronic device (laptop, tablet, smartphone) or by means of telephone with a trained interviewer. Further exclusions at the point of contact were women who were unable

to participate in English or Spanish and whose babies were not living with them at that time. The survey had a 55% response rate. Our survey respondents completed the survey at different time points, from 2 to 11 months after giving birth, and we therefore examined whether the timing was related to their responses. Topics covered the prenatal through postpartum periods, with a focus on maternity care experiences and perspectives and women's postpartum outcomes.<sup>10</sup>

### 2.1 | Measures

The survey included a series of mental health questions, based on the 4-item Patient Health Questionnaire (PHQ-4) for anxiety and depression (see Table S2 for question wording). The PHQ-4 is an ultrabrief screening tool that combines previously validated two-item screening questions for depression and anxiety into one measure. The PHQ-4 has been validated in large samples in the United States<sup>11</sup> and overseas.<sup>12</sup> The PHQ-4 postpartum questions explore respondents' feelings in the two weeks before the survey administration (eg, *Over the past 2 weeks how often were you bothered by feeling down, depressed, or hopeless?*). Response options were never (0); sometimes (1); usually (2); and always (3). Based on the scoring algorithm, scores are rated as normal (0-2), mild (3-5), moderate (6-8), or severe (9-12) depressive symptoms.<sup>11</sup> Respondents were also asked about their prenatal mental health with the same questions; however, the prenatal question involved the time frame of their pregnancy as a whole rather than the prior 2 weeks.

The assessment of practitioners inquiring about depression was based on a question asked of the 91% of mothers who reported having a postpartum visit in the 8 weeks after birth, “During your postpartum office [visit/visits] in the first 8 weeks after birth, did any maternity care provider ask if you were feeling depressed?” The use of services was assessed by questions that asked, “Did you receive any counseling or treatment for emotional or mental well-being (during your recent pregnancy?/ since your recent birth?).” The use of medications postpartum was based on responses to the question, “Are you now taking any medicine for anxiety or depression?”

### 2.2 | Covariates and statistical analysis

We estimated the likelihood of receiving postpartum mental health counseling in a succinct multivariable model, given the relatively small number of women who reported postpartum depressive symptoms. The model included maternal race/ethnicity, maternal age, insurer for the birth, and whether or not the mother reported being asked about depressive symptoms in a postpartum visit. Covariates were chosen either because prior research had identified a relationship<sup>5,6,9,13</sup> or because a bivariate relationship was seen in our analysis. In a preliminary analysis, we also examined the breakdown by race/

ethnicity and preferred language, though sample sizes became too limited with these multiple subgroups to include in the full model. Adjusted odds ratios (aORs) and 95% confidence intervals (CIs) were computed from this logistic model. We limited the analytic sample to those respondents with complete data on race/ethnicity, depressive symptoms, having a postpartum visit, and use of counseling, resulting in an analytic sample of 2187 (see Table S1). The analysis was completed using SAS, version 9.4, with  $P < 0.05$  denoting statistical significance.

The IRB of record is the Committee for the Protection of Human Subjects of California's Office of Statewide Health Planning and Development, and they approved the study and subsequent protocol amendments. The project was also approved by the UCSF IRB, and the California Department of Public Health Vital Statistics Advisory Committee approved access to birth certificate data. The data were fully anonymized before the authors received the analytic file.

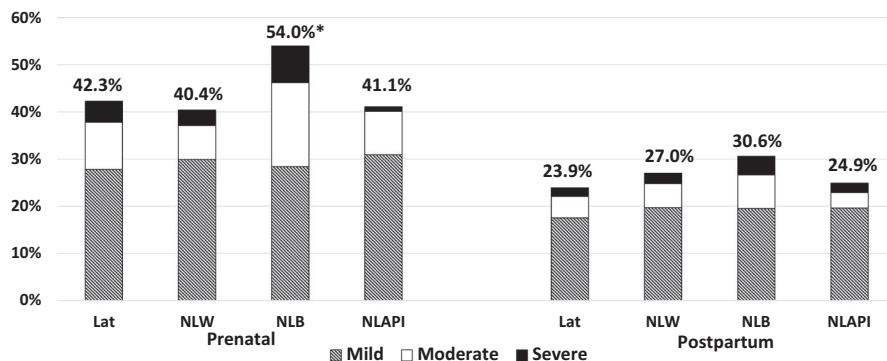
### 3 | RESULTS

Overall, based on the PHQ-4 measure, 13.3% of respondents reported symptoms of either moderate (9.5%) or severe (3.8%) depression in the prenatal period, whereas 6.7% (4.7% moderate; 2.1% severe) reported symptoms in the postpartum period (Table S1).<sup>12</sup> Likely attributable to the difference in question wording (prenatal questions asking about feelings at any time during pregnancy; postpartum questions concerning feelings during the prior two weeks), the prenatal rates were consistently higher than the postpartum figures, a finding consistent with postpartum surveys using a similar time frame.<sup>4</sup> Prenatally, these rates varied widely by race/ethnicity (Figure 1). Non-Latina Black women were significantly more likely than Latina and non-Latina White women to report depressive symptoms, with more than half reporting at least mild symptoms prenatally and almost a third postpartum. Slightly more than one-fourth of non-Latina Black women (25.7%) met the criteria for depressive symptoms prenatally, a proportion significantly higher than any other race/ethnicity group (Table S1).

The rates of reported mental health counseling among those with symptoms of depression presented in Table 1

show that non-Latina White women, while having rates of depression that were comparable to or lower than other groups, reported significantly higher rates of receiving counseling prenatally than Latina women. Overall variation in prenatal counseling by other categories was minimal, with some differences trending toward significance (eg, lower rates of counseling for women  $<25$ ). In an analysis of race/ethnicity by preferred language, the largest group in our sample, self-identified Latinas, had similar rates of counseling prenatally—15.3% (95% CI 8.2-26.6) among English speakers and 18.4% (95% CI 9.5-32.8) among Spanish speakers. When we attempted to examine interactions between other covariates and counseling among respondents with symptoms of depression, the small sample sizes precluded meaningful analysis. For postpartum counseling, whereas there were some notable absolute differences in receipt of services by race/ethnicity and insurer, the only statistically significant difference was by age, with women aged 35 and older (70.9%) compared with those younger than 25 (23.6%) and those aged 30-34 (36.1%) reporting that they received counseling ( $P < 0.05$ ).

Figure 2 presents the pattern of counseling and conditions about perinatal mental health. As noted, 13.3% of women reported symptoms of prenatal depression. There was a strong relationship between reported prenatal and postpartum symptoms. Few women (3.5%) who reported no prenatal symptoms indicated postpartum symptoms. In contrast, 27.7% of those with prenatal symptoms also reported postpartum symptoms (Figure 2). Among women reporting depressive symptoms postpartum, less than half (40.4%) received counseling. Postpartum counseling was in turn strongly related to whether or not a woman with depressive symptoms reported receiving medications for anxiety or depression postpartum. Although only 8.3% (95% CI 1.8-14.8) of those with symptoms of depression and without counseling received medications, 56.8% (95% CI 43.6-70.1) of those who received counseling reported medication use, though it is possible that medication could have been prescribed by a practitioner before counseling. We also examined women who reported prenatal depressive symptoms and whether, if they got prenatal counseling, they were less likely to report postpartum



**FIGURE 1** Prenatal and postpartum PHQ-4 categories by race/ethnicity. Lat – Latina; NLW–non-Latina White; NLB–non-Latina Black; NLAPI—non-Latina Asian & Pacific Islander; \*  $P < 0.05$  for difference with Latina and NLW prenatally

**TABLE 1** Receipt of prenatal and postpartum counseling among women reporting moderate or severe depressive symptoms

	Prenatal		Postpartum	
	Sample distribution Unweighted n (Weighted %)	Reported counseling (Weighted % and 95% Conf. Int.)	Sample distribution Unweighted n (Weighted %)	Reported counseling (Weighted % and 95% Conf. Int.)
ALL respondents	293 (100.0)	23.5 (18.3, 28.7)	144 (100.0)	40.4 (31.9, 48.8)
Race/ethnicity				
Latina	154 (56.0)	<b>18.3 (11.9, 24.6)</b>	66 (49.0)	36.0 (24.1, 47.9)
Non-Latina White	56 (22.5)	<b>43.4 (29.9, 56.8)</b>	39 (30.8)	55.6 (39.5, 71.6)
Non-Latina Asian/Pacific Isl.	31 (9.5)	<b>10.8 (0.0, 22.9)</b>	17 (8.1)	25.7 (4.8, 46.6)
Non-Latina Black	52 (12.0)	23.2 (11.5, 34.9)	22 (12.1)	30.9 (11.1, 50.7)
Age, years				
<25	93 (29.9)	14.8 (7.2, 22.5)	42 (28.9)	<b>23.6 (10.2, 37.0)</b>
25-29	86 (29.7)	26.0 (15.8, 36.2)	38 (26.1)	41.3 (24.6, 58.0)
30-34	62 (22.0)	29.6 (17.7, 41.5)	38 (26.2)	<b>36.1 (20.5, 51.7)</b>
35+	52 (18.4)	26.2 (13.7, 38.6)	26 (18.8)	<b>70.9 (53.6, 88.2)</b>
Marital status				
Married	127 (45.4)	28.3 (19.9, 36.6)	73 (52.2)	40.6 (28.5, 52.8)
Non-married/other	166 (54.6)	19.5 (13.1, 25.9)	71 (47.8)	40.1 (28.4, 51.8)
Country of birth				
United States	209 (70.9)	23.7 (17.5, 29.9)	107 (73.5)	38.5 (22.3, 54.7)
Other country	84 (29.1)	22.9 (13.4, 32.4)	37 (26.5)	41.0 (31.2, 50.9)
Language spoken at home				
English	182 (59.4)	25.2 (18.4, 32.0)	98 (65.3)	44.2 (33.7, 54.6)
Spanish	39 (12.9)	21.9 (8.5, 35.4)	14 (10.1)	30.1 (5.5, 54.6)
English and Spanish equally	53 (19.9)	16.4 (5.8, 26.9)	22 (17.0)	36.9 (16.4, 57.5)
Asian language	15 (6.4)	15.6 (0.0, 36.0)	6 (5.5)	27.1 (0.0, 62.2)
Other language	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>
Education				
High school or less	107 (37.1)	24.7 (16.0, 33.3)	38 (26.8)	36.3 (20.0, 52.5)
Some college	115 (39.1)	22.9 (14.4, 31.4)	59 (41.7)	42.4 (29.1, 55.7)
4-year college	36 (12.3)	15.0 (4.1, 25.8)	24 (16.6)	36.8 (16.6, 57.1)
Some graduate school+	35 (11.5)	30.7 (14.5, 47.0)	23 (14.9)	46.0 (25.1, 67.0)

(Continues)

TABLE 1 (Continued)

	Prenatal		Postpartum	
	Sample distribution Unweighted n (Weighted %)	Reported counseling (Weighted % and 95% Conf. Int.)	Sample distribution Unweighted n (Weighted %)	Reported counseling (Weighted % and 95% Conf. Int.)
Insurer				
Medi-Cal	167 (55.4)	23.9 (16.9, 30.9)	74 (48.6)	35.5 (23.9, 47.0)
Private insurance	118 (42.1)	24.3 (16.1, 32.4) <sup>a</sup>	64 (46.3)	48.3 (35.5, 61.2)
Self-pay/unknown	8 (2.5)		6 (5.1)	14.6 (0.0, 41.5)
Parity				
Primiparous	115 (36.9)	20.1 (12.4, 27.8)	59 (37.5)	32.4 (19.8, 45.1)
Multiparous	178 (63.1)	25.5 (18.6, 32.3)	85 (62.5)	45.1 (34.1, 56.1)

Note: Bolded cells are significant at  $P < 0.05$  from cells of the same variable.

<sup>a</sup>Not reporting results from cells with 5 or fewer cases.

depressive symptoms and found no significant difference (data not shown).

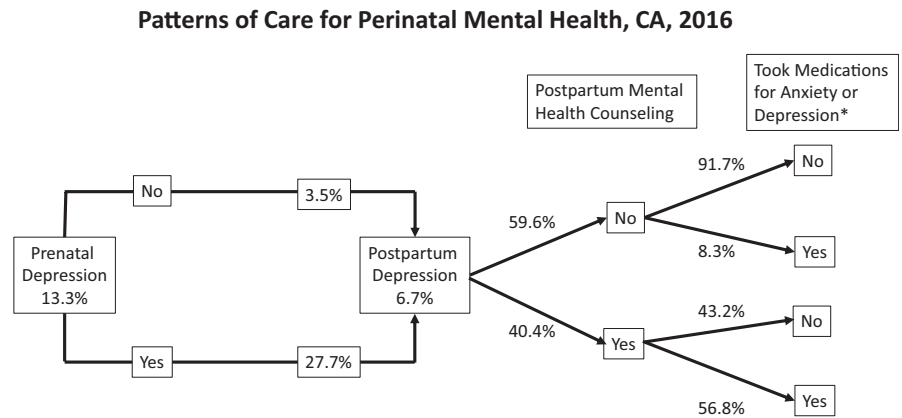
A substantial overall relationship between postpartum counseling rates among women with depressive symptoms, based on whether or not a practitioner asked whether the women were feeling depressed, is examined by race/ethnicity in Figure 3. A total of 79% of mothers reported being asked about depressive symptoms in their postpartum visit, a figure that varied little by whether a women was experiencing depressive symptoms (80%) or not (79%) or by race/ethnicity (Latina 78%; non-Latina White 81%; non-Latina Black 78%; and non-Latina Asian 79%) (data not shown). However, women who were asked about depressive symptoms reported getting counseling 46% of the time (95% CI 35.6%-55.6%) compared with 20% (95% CI 2.5%-36.5%) among women who were not asked. Because of limited sample sizes by race, we could only compare non-Latina White women with all others in Figure 3, and although the subgroup differences were not statistically significantly different, the directions of the differences are notable. Among non-White women, only 6.6% of those *with symptoms of depression* who were not asked about depression reported receiving counseling, whereas among non-Latina White women, whether one was asked (56%) or not (51%) appeared to have little impact on counseling rates.

The use of medications postpartum to treat anxiety or depression, among women with reported symptoms, also varied widely by race/ethnicity. Non-Latina White women (37.7%; 95% CI 21.9%-53.6%) were significantly more likely than non-Latina Black women (7.7%; 95% CI 0.0%-18.3%) to report medication use, with non-Latina Asian/Pacific Islander women (18.7%; 95% CI 0.0%-41.5%) and Latina women (27.3%; 95% CI 16.2%-38.4%) in between (data not shown).

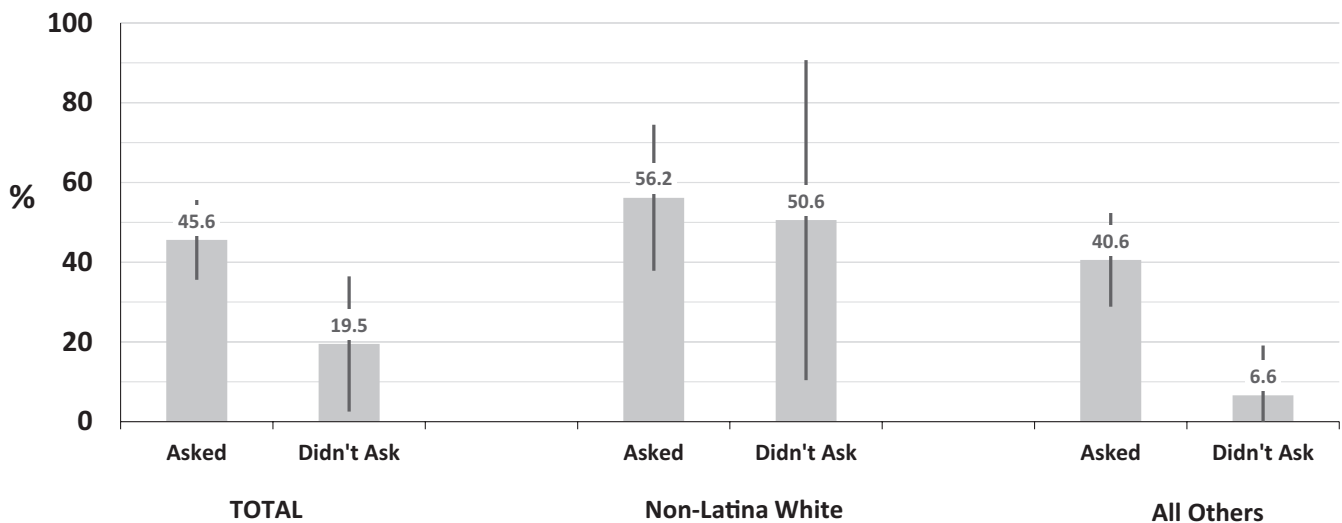
The multivariable analysis (Table 2) largely confirmed the bivariate results. The likelihood of counseling was lower for non-Latina Black women (aOR = 0.26; 95% CI, 0.07-0.99) and non-Latina Asian/Pacific Islander women (aOR = 0.16; 95% CI, 0.05-0.58) than for non-Latina White women. Counseling was also more likely among women aged 35+ (aOR = 3.9; 95% CI, 1.01-15.1). Counseling trended toward being less likely among women on Medicaid or self-pay compared with women on private insurance, but those relationships were not statistically significant. Women with depressive symptoms who were asked about their feelings of depression in a postpartum visit were far more likely (aOR 6.0; 95% CI 1.6-21.7) to report receiving postpartum counseling.

Finally, we examined the possible effect of timing of survey responses, since respondents could have answered the survey between 2 and 11 months postpartum. Half the respondents completed the survey within 5 months of giving birth and 93% within 8 months (data not shown). Comparing the reported rates for postpartum depression across time periods,

**FIGURE 2** Patterns of care for perinatal mental health, CA, 2016



**Prevalence of postpartum mental health counseling (and 95% C.I.) among women with depressive symptoms by whether provider asked about depression during a postpartum visit and by race/ethnicity**



**FIGURE 3** Prevalence of postpartum mental health counseling (and 95% CI) among women with depressive symptoms by whether provider asked about depression during a postpartum visit and by race/ethnicity

there was some month-to-month variation with higher rates in earlier months 2-4 (8.4% in months 2-4) than later (5.7% at 7+ months), but no month was statistically significantly higher or lower than any other month. Likewise, recall of being asked about depression, and the use of counseling or medications among those with postpartum depression displayed no temporal pattern and did not vary significantly across time periods (data not shown).

## 4 | DISCUSSION

This study of the use of perinatal mental health services in a representative survey of 2187 women who gave birth in California in 2016 found non-Latina Black women to experience both higher rates of prenatal depressive symptoms

and significantly lower use of postpartum counseling services and medications than non-Latina White women. Non-Latina Asian women with postpartum symptoms were also less likely than non-Latina White women to receive counseling. In both the bivariate (35.5% vs 48.3%) and multivariable analyses (aOR 0.62 95% CI 0.26-1.48), there was a trend toward women on Medi-Cal being less likely to receive counseling, but neither relationship achieved statistical significance, in part because of limits in sample size. As in prior studies, there was also a strong relationship between reported prenatal and postpartum mental health with women reporting symptoms prenatally far more likely to report postpartum depressive symptoms as well.<sup>14</sup>

The findings also suggested that whether or not a practitioner asked about depressive symptoms in a postpartum visit was unrelated to depressive symptoms, with women

Sample distribution		Likelihood of counseling among women with postpartum PHQ mod/severe
Unweighted n (Weighted %)		aOR* and 95% CI
Race/ethnicity		
Non-Latina White (ref)	36 (31.6)	1.00
Latina	58 (47.4)	0.45 (0.17-1.20)
Asian and Pacific Isl.	15 (12.5)	<b>0.16 (0.05-0.58)</b>
Black	21 (8.5)	<b>0.26 (0.07-0.99)</b>
Age, years		
25-29 (ref)	34 (25.5)	1.00
18-24	39 (30.2)	0.32 (0.10-1.01)
30-34	32 (24.5)	0.87 (0.27-2.79)
35+	25 (19.9)	<b>3.91 (1.01-15.08)</b>
Insurer		
Private insurance (ref)	61 (48.5)	1.00
Medi-Cal	63 (45.9)	0.62 (0.26-1.48)
Self-Pay/Unknown	6 (5.6)	0.19 (0.03-1.50)
PPM practitioner asked if depressed		
No (ref)	25 (19.9)	1.00
Yes	105 (80.1)	<b>5.96 (1.64-21.72)</b>

Note: Bolded cells are significant at  $P < 0.05$ .

\*Excludes women who had missing data on whether or not they had a postpartum visit or were asked about depressive symptoms, if they did have a visit.

reporting depressive symptoms no more likely to be asked than those not reporting. However, being asked about depressive symptoms was very strongly related to receiving counseling. Women with depressive symptoms who reported being asked about their feelings of depression were almost 6 times more likely to report receiving counseling when we controlled for age, race/ethnicity, and insurer. The use of medications to support postpartum mental health also varied widely by race/ethnicity, and it, in turn, was strongly related to whether or not a woman reported counseling.

Screening for perinatal depression has been widely recommended by professional organizations, including the American College of Obstetricians and Gynecologists<sup>15</sup> and the United States Preventive Services Task Force,<sup>16</sup> which found "...convincing evidence that counseling interventions, such as cognitive behavioral therapy and interpersonal therapy, are effective in preventing perinatal depression." (p.585)<sup>17</sup> If counseling is one key step in improving perinatal mental health, then getting women to counseling remains a challenge, with only 40% of those women with postpartum depressive

**TABLE 2** Likelihood of counseling postpartum among respondents with postpartum depressive symptoms and a postpartum visit within 8 weeks of delivery (n = 130<sup>a</sup>)

symptoms, and 24% of those with prenatal depressive symptoms receiving counseling.

As noted, we found higher rates of prenatal and postpartum counseling for non-Latina White women compared with non-Latina Black women. These differences can result from both individual- and systems-level factors.<sup>18</sup> At the individual level, cultural wariness of counseling including fear of presenting as less than a "strong" Black or Latina woman,<sup>19</sup> the stigma associated with accessing mental health services,<sup>20</sup> and practical issues of timing, childcare, and transportation challenges associated with caring for a newborn<sup>21</sup> can impede the use of counseling. At the systems level, having accessible mental health services is an obvious need, with one study finding a preference among women for mental health services to be available at the site of their obstetric services.<sup>22</sup> Although our study did not directly address those impediments, the low levels of counseling we found suggest the need for multiple strategies to improve access.

In terms of increasing access, our findings presented both positive and negative results. It is encouraging that such a

high proportion (79%) of women reported being asked about their mental health in a postpartum visit and that this applied across race/ethnicity groups and regardless of depressive symptoms. This suggests a systems approach to querying mothers about their depressive symptoms and provides support for efforts to routinize these practices through statutory change. For example, California passed a law in 2018 requiring universal prenatal and postpartum screening beginning in July 2019.<sup>23</sup> However, there were two related findings of concern. *Among those with depressive symptoms* who were not asked about those symptoms, only 20% reported receiving counseling. Likewise, less than half (46%) of those who were asked reported getting counseling. With increasing calls for attention to perinatal health,<sup>24</sup> the need for alternatives to traditional approaches, including telemental health<sup>25</sup> and task shifting,<sup>26</sup> provides opportunities to expand access to services and perhaps redress the differences found here.

Concerns with inequities in maternal health have become a particular focus of attention in light of the high United States maternal mortality ratio<sup>27</sup> and the persistent inequities in those ratios with Black mothers 2.5–4 times to experience a maternal death than White mothers.<sup>28</sup> The importance of Black women having access to physical and mental health services overall and in high-quality sites has been described as one means to reduce these inequities,<sup>29</sup> with one study finding deaths associated with mental health issues second only to cardiomyopathy as a cause of maternal deaths in the postpartum period.<sup>30</sup> There has also been recent documentation of pregnancy-associated suicides, which are not included in official United States maternal mortality statistics, as a growing problem, though that is one instance where rates for Black women are substantially lower than for White women.<sup>31</sup> The inter-racial differences seen in counseling were also evident in the use of medications by women with depressive symptoms to deal with mental health issues. Non-Latina White mothers were far more likely to report using medications (38%) than non-Latina Black women (8%) with the likelihood of medication use strongly related to receipt of counseling.

This paper is subject to several limitations. California, being the site of almost half a million births in 2016 (12.4% of the national total), is not representative of the United States as a whole, in particular in its large proportion of births (47%) to Latina mothers. In addition, our reported postpartum rates of women with depressive symptoms were lower than the rate reported by a similar survey, the California Maternal and Infant Health Assessment (MIHA), likely because of question wording.<sup>4</sup> Although our postpartum measure asked women to refer to their feelings in the prior two weeks, the MIHA survey asked about the entire time period since birth. Our sample, while large for a statewide survey, when limited to the 7% of women reporting postpartum depressive symptoms, did not permit a detailed analysis by subgroups. In addition, the smaller subset of women with depressive symptoms meant

that in several instances, large absolute differences did not reach statistical significance.

The survey did not include questions concerning depression and counseling before the index pregnancy, so a longer term history of mental health status and treatment was unavailable. Such a history could have affected the likelihood of depression screening and referral for treatment. The survey also relied on maternal recall of feelings of depression and interactions with practitioners, both in the postpartum period and during pregnancy, and both may be subject to recall and social desirability biases. Mothers' recall in past studies has been found to be generally reliable,<sup>32–34</sup> but we cannot be certain of mothers' recall of these specific events or whether the discussion of depressive symptoms was followed by a recommendation for counseling.

This paper has identified a familiar problem—racial/ethnic inequities in the rates of a condition and the subsequent use of services—in this case involving prenatal and postpartum mental health services. However, we also identified what appears to be a standardized approach to addressing the problem. A large proportion of mothers reported being asked about their mental health in their postpartum visits, but among those who were not asked about their mental health, the receipt of postpartum counseling was strikingly less likely. The finding that the asking about depressive symptoms was not related to maternal depressive symptoms suggests it is a systems question that can be addressed by more focused efforts on prenatal and postpartum screening and greater access to mental health services. These findings support advocating for state laws and regulations calling for universal screening for postpartum depression to reduce inequities and hopefully increase access to and use of counseling services among all women with depressive symptoms, but particularly among women of color.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in Listening to Mothers in California at <https://odum.unc.edu/archive/>, reference number <https://dataverse.unc.edu/dataset.xhtml?persistentId=doi:10.>

#### ORCID

Eugene Declercq  <https://orcid.org/0000-0001-5411-3033>

#### REFERENCES

1. ASTHO Staff. States look to address the impact of postpartum depression. Association of State and Territorial Health Officers. <https://www.astho.org/StatePublicHealth/States-Look-to-Address-the-Impact-of-Postpartum-Depression/08-01-19/>. Accessed March 21, 2021
2. Hahn-Holbrook J, Cornwell-Hinrichs T, Anaya I. Economic and health predictors of national postpartum depression prevalence: A systematic review, meta-analysis, and meta-regression of 291 studies from 56 countries. *Front Psychiatry*. 2017;8:248.



3. CDC. Prevalence of selected maternal and child health indicators for all PRAMS sites, Pregnancy Risk Assessment Monitoring System (PRAMS), 2016-2017. Pregnancy Risk Assessment Monitoring System. [https://www.cdc.gov/prams/prams-data/mch-indicators/states/pdf/2018/All-PRAMS-Sites-2016-2017\\_508.pdf](https://www.cdc.gov/prams/prams-data/mch-indicators/states/pdf/2018/All-PRAMS-Sites-2016-2017_508.pdf). Accessed January 5, 2021
4. Maternal CaAHD. *Symptoms of Depression During and After Pregnancy*. Sacramento, CA: California Dept. Public Health; 2018.
5. Soffer MD, Adams ZM, Chen YS, Fox NS. Risk factors for positive postpartum depression screen in women with private health insurance and access to care. *J Matern Fetal Neonatal Med*. 2019;32(24):4154-4158.
6. Kim Y, Dee V. Sociodemographic and obstetric factors related to symptoms of postpartum depression in hispanic women in rural California. *J Obstet Gynecol Neonatal Nurs*. 2018;47(1):23-31.
7. Byatt N, Simas TA, Lundquist RS, Johnson JV, Ziedonis DM. Strategies for improving perinatal depression treatment in North American outpatient obstetric settings. *J Psychosom Obstet Gynaecol*. 2012;33(4):143-161.
8. Cox EQ, Sowa NA, Meltzer-Brody SE, Gaynes BN. The perinatal depression treatment cascade: baby steps toward improving outcomes. *J Clin Psychiatry*. 2016;77(9):1189-1200.
9. Kozhimannil KB, Trinacty CM, Busch AB, Huskamp HA, Adams AS. Racial and ethnic disparities in postpartum depression care among low-income women. *Psychiatr Serv*. 2011;62(6):619-625.
10. Sakala C, Declercq ER, Turon JM, Corry MP. *Listening to Mothers in California*. Washington, DC: National Partnership for Women & Families; 2018.
11. Kroenke K, Spitzer R, Williams J, Löwe B. An ultra-brief screening scale for anxiety and depression: the PHQ-4. *Psychosomatics*. 2009;50(6):613-621.
12. Rodríguez-Muñoz MF, Ruiz-Segovia N, Soto-Balbuena C, Le HN, Olivares-Crespo ME, Izquierdo-Méndez N. The psychometric properties of the patient health questionnaire-4 for pregnant women. *Int J Environ Res Public Health*. 2020;17(20):7583.
13. Correa-de-Araujo R, Yoon SSS. Clinical outcomes in high-risk pregnancies due to advanced maternal age. *J Womens Health (Larchmt)*. 2021;30(2):160-167.
14. Dietz P, Williams S, Callaghan W, Bachman DJ, Whitlock EP, Hornbrook MC. Clinically identified maternal depression before, during, and after pregnancies ending in live births. *Am J Psychiatry*. 2007;164(10):1515-1520.
15. ACOG. ACOG Committee Opinion No. 757: Screening for Perinatal Depression. *Obstet Gynecol*. 2018;132(5):e208-e212.
16. Siu AL, Force atUPST. Screening for depression in adults: US Preventive Services Task Force recommendation statement. *JAMA*. 2016;315(4):380-387.
17. Curry SJ, Krist AH, Owens DK, et al. Interventions to prevent perinatal depression: US Preventive Services Task Force recommendation statement. *JAMA*. 2019;321(6):580-587.
18. Keefe RH, Brownstein-Evans C, Rouland Polmanteer RS. Addressing access barriers to services for mothers at risk for perinatal mood disorders: a social work perspective. *Soc Work Health Care*. 2016;55(1):1-11.
19. Woods-Giscombé CL. Superwoman schema: African American women's views on stress, strength, and health. *Qual Health Res*. 2010;20(5):668-683.
20. Boyd RC, Mogul M, Newman D, Coyne JC. Screening and referral for postpartum depression among low-income women: a qualitative perspective from community health workers. *Depress Res Treat*. 2011;2011:320605.
21. Kim JJ, La Porte LM, Corcoran M, Magasi S, Batza J, Silver RK. Barriers to mental health treatment among obstetric patients at risk for depression. *Am J Obstet Gynecol*. 2010;202(3):312.e311-312.e315.
22. Goodman JH. Women's attitudes, preferences, and perceived barriers to treatment for perinatal depression. *Birth*. 2009;36(1):60-69.
23. California. Assembly Bill No. 2193 Maternal mental health. In: Government of California, ed. Chapter 755. 2019. [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=201720180AB2193](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB2193)
24. Howard LM, Khalifeh H. Perinatal mental health: a review of progress and challenges. *World Psychiatry*. 2020;19(3):313-327.
25. Ackerman M, Greenwald E, Noulas P, Ahn C. Patient satisfaction with and use of telemental health services in the perinatal period: a survey study. *Psychiatr Q*. 2021;92:925-933.
26. Singla DR, Lawson A, Kohrt BA, et al. Implementation and effectiveness of nonspecialist-delivered interventions for perinatal mental health in high-income countries: a systematic review and meta-analysis. *JAMA Psychiatry*. 2021;78:498.
27. Hoyert D. *Maternal Mortality Rates in the United States, 2019*. Hyattsville, MD: National Center for Health Statistics; 2021. <http://dx.doi.org/10.15620/cdc:103855>
28. Howell EAMM. Reducing disparities in severe maternal morbidity and mortality. *Clin Obstet Gynecol*. 2018;61(2):387-399.
29. Howell EA, Zeitlin J. Improving hospital quality to reduce disparities in severe maternal morbidity and mortality. *Semin Perinatol*. 2017;41(5):266-272.
30. Centers for Disease Control and Prevention. Report from Nine Maternal Mortality Review Committees. Building U.S. Capacity to Review and Prevent Maternal Deaths. Centers for Disease Control and Prevention; 2018. <https://www.cdcfoundation.org/sites/default/files/files/ReportfromNineMMRCs.pdf>
31. Wallace ME, Hoyert D, Williams C, Mendola P. Pregnancy-associated homicide and suicide in 37 US states with enhanced pregnancy surveillance. *Am J Obstet Gynecol*. 2016;215(3):364.e361-364.e310.
32. Yawn BP, Suman VJ, Jacobsen SJ. Maternal recall of distant pregnancy events. *J Clin Epidemiol*. 1998;51(5):399-405.
33. Lederman SA, Paxton A. Maternal reporting of prepregnancy weight and birth outcome: consistency and completeness compared with the clinical record. *Matern Child Health J*. 1998;2(2):123-126.
34. Keenan K, Hipwell A, McAloon R, Hoffmann A, Mohanty A, Magee K. Concordance between maternal recall of birth complications and data from obstetrical records. *Early Hum Dev*. 2017;105:11-15.

## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

**How to cite this article:** Declercq E, Feinberg E, Belanoff C. Racial inequities in the course of treating perinatal mental health challenges: Results from listening to mothers in California. *Birth*. 2022;49: 132–140. <https://doi.org/10.1111/birt.12584>