

was analyzed using uni- and multivariable logistic regression models. In a second analysis, we focused on the mechanism leading to preterm delivery according to 3 categories: spontaneous labor, preterm premature rupture of membranes (PPROM), and placental vascular pathology, using multinomial analysis.

RESULTS: At least one criterion of social deprivation was presented by 33% of the patients: 4.7% social isolation, 15.6% no work-related household income, 15.6% insecure housing situation and 22.4% no standard health insurance. Preterm delivery complicated 7% of pregnancies (39.8% spontaneous labor, 28.3% PPRM, 21.8% placental vascular pathologies and 10.1% others). In both univariable and multivariable analysis, there was no association between social deprivation and the risk of preterm delivery overall (Index of deprivation 1 vs 0, aOR=1.03 IC95% [0.83-1.28], 2 vs 0: aOR=1.05 IC95% [0.77-1.40], 3 vs 0: aOR=0.92 IC95% [0.66-1.31]) or according to its mechanisms.

CONCLUSION: Contrary to results reported in other contexts, we did not observe any associations between different markers of social deprivation and the risk of preterm delivery, whatever its mechanism. These results raise hypotheses about the mechanisms of social inequalities in perinatal health.

Table 1: Association between social deprivation index and preterm birth depending on its mechanism (multinomial regression)

Social deprivation index	Spontaneous labor				Preterm Rupture of Membranes (PPROM)				Placental vascular pathology			
	OR	95%CI	aOR**	95%CI	OR	95%CI	aOR	95%CI	OR	95%CI	aOR	95%CI
0												
1	0.89	[0.64,1.26]	0.94	[0.65,1.34]	0.86	[0.57,1.29]	0.93	[0.55,1.41]	1.24	[0.81,1.89]	1.19	[0.76,1.89]
2	1.03	[0.67,1.58]	1.07	[0.68,1.84]	1.14	[0.69,1.85]	1.16	[0.69,1.95]	1.12	[0.81,2.01]	1.03	[0.55,1.89]
3	1.39	[0.64,1.66]	1.09	[0.64,1.84]	0.91	[0.49,1.65]	0.93	[0.48,1.79]	1.3	[0.71,2.39]	1.07	[0.53,2.14]
Maternal Age (years)												
<20	1.89	[0.82,4.40]	1.82	[0.77,4.3]	3.25	[1.38,7.67]	2.71	[1.11,6.62]	0.59	[0.08,4.26]	0.39	[0.05,2.83]
[20,30]												
30-40	1.06	[0.83,1.38]	1.05	[0.81,1.36]	1.34	[0.98,1.85]	1.41	[1.02,1.99]	1.12	[0.79,1.57]	1.42	[0.99,2.03]
≥40	1.03	[0.57,1.90]	1.06	[0.58,1.95]	2.66	[1.57,4.56]	2.9	[1.68,5.05]	1.45	[0.71,2.95]	1.91	[0.43,3.90]
Parity												
Nulliparous												
Multiparous	1.21	[0.91,1.60]	1.23	[0.44,1.66]	0.93	[0.68,1.28]	0.85	[0.60,1.18]	0.65	[0.46,0.92]	0.49	[0.34,0.71]
Schooling level												
None or primary school	0.83	[0.47,1.46]	0.88	[0.48,1.59]	0.6	[0.27,1.30]	0.62	[0.27,1.41]	1.21	[0.59,2.47]	1.16	[0.55,2.56]
Middle school	1.05	[0.75,1.47]	1.04	[0.73,1.49]	1.25	[0.86,1.83]	1.3	[0.88,1.99]	1.5	[1.03,2.31]	1.66	[1.02,2.75]
High school	1.04	[0.77,1.41]	1.06	[0.77,1.49]	1.05	[0.74,1.51]	1.13	[0.77,1.66]	1.55	[1.04,2.31]	1.73	[1.12,2.66]
University												
Maternal birthplace												
French territory												
(metropolitan and overseas)												
Europe	0.75	[0.40,1.03]	0.74	[0.39,1.36]	0.76	[0.37,1.57]	0.75	[0.36,1.55]	0.55	[0.20,1.52]	2.05	[0.81,3.32]
North Africa	0.59	[0.41,0.85]	0.6	[0.41,0.86]	0.77	[0.52,1.13]	0.74	[0.49,1.15]	0.58	[0.34,0.96]	0.53	[0.31,0.89]
Sub-Saharan Africa	0.82	[0.58,1.18]	0.79	[0.53,1.16]	0.88	[0.59,1.34]	0.93	[0.58,1.47]	1.53	[1.03,2.31]	1.53	[0.95,2.48]
Other	1.11	[0.74,1.66]	1.1	[0.73,1.68]	0.53	[0.28,1.02]	0.53	[0.27,1.03]	1.01	[0.55,1.82]	0.87	[0.48,1.61]

OR: Odds Ratio, aOR: adjusted Odds Ratio (maternal age, parity, schooling level, maternal birthplace); CI: Confidence Interval 95%; ref: reference category

178 Association between perceived ethnic discrimination and receipt of COVID-19 vaccine in pregnancy or postpartum

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OBJECTIVE: To determine the association between COVID-19 vaccination in pregnancy or postpartum and perceived ethnic discrimination.

STUDY DESIGN: Pregnant patients receiving prenatal care at a Midwestern academic institution were approached between June 2021 and March 2022 to complete a web-based Perceived Ethnic Discrimination Questionnaire (PED-Q). The PED-Q is a validated 17-item scale measuring perceived interpersonal racial and ethnic discrimination through four domains: workplace/school domain, exclusion domain, stigma domain, and threat domain, with each domain containing questions rated on a five-point Likert scale ranging from “never” to “very often”. All four domains were summarized in a lifetime discrimination score ranging from 1 to 5. The primary outcome was receipt of COVID-19 vaccination. A multivariate logistic regression model was used to examine the association

between “lifetime discrimination score” and COVID-19 vaccination in pregnancy or postpartum.

RESULTS: Of the 289 pregnant patients who completed the PED-Q, 219 (75.8%) received the COVID-19 vaccine and 70 (24.2%) declined. For each domain of PED-Q, and for the combined score of lifetime discrimination, a higher score was associated with a higher rate of declining the COVID-19 vaccine (Table 1). After adjusting for potential cofounders, each unit increase in lifetime exposure to perceived discrimination was associated with ~ two times higher odds of not receiving the COVID-19 vaccine (aOR 1.97, 95% CI 1.01-3.86) (Table 2).

CONCLUSION: We found that higher lifetime exposure to perceived discrimination was associated with higher risk of declining COVID-19 vaccination during pregnancy or postpartum.

TABLE 1: Perceived ethnic discrimination scores stratified by receipt of COVID-19 vaccination in pregnancy or postpartum

	Receipt of COVID-19 vaccination in pregnancy or postpartum N=219	Declining COVID-19 vaccination in pregnancy or postpartum N=70	P-value
Perceived Ethnic Discrimination (1 – 5, 5=highest) – mean ± SD			
Workplace/school domain	1.63 ± 0.70	2.11 ± 0.89	<0.001
Exclusion domain	1.78 ± 0.72	2.00 ± 0.82	0.047
Stigma domain	1.35 ± 0.49	1.55 ± 0.70	0.026
Threat domain	1.20 ± 0.47	1.48 ± 0.73	<0.001
Lifetime discrimination	1.49 ± 0.47	1.78 ± 0.67	<0.001

TABLE 2: Unadjusted and adjusted logistic regression for the association between perceived lifetime discrimination and declining COVID-19 vaccination during pregnancy or postpartum (reference is receipt of COVID-19 vaccination)

	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Perceived lifetime discrimination	2.62 (1.58-4.35)	1.97 (1.01-3.86)
Mother's type of insurance (public + none, compared to private)	3.01 (1.73-5.23)	1.12 (0.45-2.75)
Married (compared to non-married)	3.35 (1.90-5.94)	0.60 (0.21-1.71)
Education		
College	Ref	Ref
High school	3.50 (1.73-7.08)	2.49 (0.87-7.13)
Graduate school	0.21 (0.09-0.49)	0.25 (0.08-0.73)
Employment (compared to non-employed)	2.90 (1.60-5.24)	0.77 (0.31-1.91)
Average household income		
>\$75,000	Ref	Ref
<\$30,000	7.05 (3.25-15.29)	1.88 (0.42-8.40)
\$30,001 - \$50,000	4.94 (2.16-11.27)	2.39 (0.75-7.64)
\$50,001 - \$75,000	5.30 (2.42-11.61)	2.08 (0.74-5.83)
Chronic hypertension (compared to none)	1.05 (0.43-2.58)	0.72 (0.21-2.50)
BMI ≥ 30 kg/m ²	1.69 (0.96-2.97)	0.74 (0.32-1.68)
Number of prior pregnancies	1.62 (1.28-2.05)	1.48 (1.09-2.00)
Number of prenatal visits	0.92 (0.82-1.03)	0.95 (0.83-1.09)
Change in prenatal provider (compared to no change)	1.11 (0.45-2.74)	0.66 (0.16-2.71)
Use of alcohol in pregnancy	0.20 (0.03-1.51)	0.30 (0.03-2.63)
Smoking during pregnancy	14.00 (2.90-67.63)	11.52 (1.12-118.17)

179 Is obesity associated with increased adverse outcomes among forceps assisted vaginal deliveries?

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OBJECTIVE: The relationship between body mass index (BMI) and obstetric anal sphincter injury (OASIS) at delivery is controversial. Studies report both increased and decreased rates of OASIS at the time of delivery with increasing BMI. The objective of this study was to assess the relationship between obesity and adverse outcomes, including OASIS, specifically among patients with forceps assisted vaginal deliveries (FAVD).