Racial Disparities in Substance Use Treatment and Perinatal Outcomes for Pregnant Women

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Introduction

- Substance Use Disorders (SUDs) in pregnancy, specifically Opioid Use Disorder (OUD), are a major public health issue posing a significant threat to both mothers and fetuses with overdose being a leading cause of pregnancy-associated morbidity and mortality.[1]
- Racial inequities are prevalent in both maternal-infant health and SUD treatment outcomes, demanding focused attention.[2]
- Despite the critical importance, there is limited research on racial disparities in the initiation and continuation of Medication for Addiction Treatment (MAT), the mainstay of treatment for OUD in pregnancy, and related perinatal outcomes.

Objective

- **To evaluate the impact of maternal race on rates of initiation and maintenance of MAT and subsequent perinatal outcomes among pregnant women with OUD** seeking prenatal care through a specialized outpatient center providing comprehensive prenatal care and substance use recovery services – the Women and Infant Substance Help (WISH) Center.

Methods

- We conducted a retrospective cohort study of pregnant women with ongoing SUDs receiving prenatal care at the WISH Center between December 2019 to March 2023.
- Information pertaining to demographics, SUD patterns, MAT usage, and maternal and neonatal outcomes were abstracted from electronic records and compared across 2 groups: Non-Hispanic Black and Non-Hispanic White women.
- Rates of initiation and maintenance of MAT during pregnancy were evaluated across study groups.

Outcomes for perinatal outcomes:

Maternal Composite
- Antepartum relapse
- Antepartum overdose
- Postpartum relapse
- Postpartum overdose
- Severe maternal morbidity (SMM)

Neonatal Composite
- Neonatal Abstinence Syndrome (NAS) requiring pharmacologic treatment
- NICU stay >7 days
- SGA at birth
- Neonatal demise

Table 1. MAT in Pregnancy, Based on Maternal Race

	Total (N=485)	Non-Hispanic Black Women N=125 (26%)	Non-Hispanic White Women N=360 (74%)	p-value
	N (%)	N (%)	N (%)	
MAT prior to pregnancy:				
Buprenorphine	136 (28)	26 (20.8)	110 (30.6)	0.04*
Methadone	149 (30.7)	33 (26.4)	116 (32.2)	0.22
Buprenorphine/naloxone	159 (32.8)	26 (20.8)	133 (36.9)	<0.01*
MAT at prenatal care initiation	182 (37.6)	29 (23.2)	153 (42.6)	<0.01*
Gestational age at MAT initiation (mean ± sd)	20.2 ± 8.8	20.6 ± 8.7	20.1 ± 8.9	0.77
Current MAT in pregnancy				<0.01*
Buprenorphine	161 (34.8)	23 (19.7)	138 (39.9)	
Methadone	130 (28.1)	42 (35.9)	88 (25.4)	
UDS positive on delivery admission	228 (49.6)	68 (57.1)	160 (46.9)	0.02*

Urine drug screening (UDS)
**Significance defined as p≤0.05*

Table 2. Perinatal Outcomes, Based on Maternal Race

	Total (N=485)	Non-Hispanic Black Women N=125 (26%)	Non-Hispanic White Women N=360 (74%)	p-value
	N (%)	N (%)	N (%)	
Maternal Composite	301 (62.1)	87 (69.6)	214 (59.4)	0.04*
Antepartum relapse	275 (57.9)	79 (64.2)	196 (55.7)	0.10
Antepartum overdose	9 (1.9)	2 (1.7)	7 (2)	0.96
Postpartum relapse	72 (15.7)	23 (20.2)	49 (14.2)	0.01*
Postpartum overdose	3 (0.7)	3 (2.6)	0	<0.01*
SMM event	20 (4.5)	9 (8.1)	11 (3.3)	0.03*
Neonatal Composite	198 (40.8)	49 (39.2)	149 (41.4)	0.67
NAS requiring pharmacologic treatment	85 (26.1)	19 (25.7)	66 (26.2)	1.00
Length of NICU stay > 7 days	127 (26.2)	34 (27.2)	93 (25.8)	0.76
SGA at birth	75 (17.3)	21 (19.6)	54 (16.6)	0.47
Neonatal demise	8 (1.8)	1 (0.9)	7 (2.1)	0.26

Severe Maternal Morbidity (SMM), Neonatal Abstinence Syndrome (NAS), Neonatal intensive care unit (NICU), Small-for-Gestational-Age (SGA)
**Significance defined as p≤0.05*

Results

- Out of 485 pregnancies: 125 (26%) self-identified as Non-Hispanic Black Women and 360 (74%) self-identified as Non-Hispanic White Women.
- Non-Hispanic Black Women were less likely to have been prescribed buprenorphine (p=.04) and buprenorphine/naloxone (p<.01) in the past and were less likely to be on all types of MAT at conception (p<.01) and during pregnancy (p<.01). There was no significant difference in the rate of Methadone use prior to conception.
- Non-Hispanic Black Women experienced significantly higher rates of the adverse maternal composite (p=.04) while rates for the neonatal composite were similar.

Conclusions

- Our study exposes alarming racial disparities in SUD treatment and perinatal outcomes.
- Non-Hispanic Black women had significantly elevated risks for adverse maternal outcomes. They also exhibited higher rates of positive urine drug screens at delivery, displaying inequities in MAT follow through. However neonatal outcomes were similar across study groups.
- Addressing disparities in SUD care requires comprehensive, integrated clinical and community-based interventions for creating a more equitable and inclusive systems-based approach to care.

References

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