

Implicit bias, structural racism and obstetric anesthesia outcomes: a scoping review of the literature

Fiamma van Biema, M.A., Ruth Landau, M.D.



Division of Obstetric Anesthesia, Columbia University Irving Medical Center, New York, NY

Background

Racial inequities in the U.S. → healthcare emergency

- Alarming differences in maternal mortality rates based on race¹

Disparities in obstetric anesthesia outcomes

- Adding to the pervasive pattern of racial disparities in women's health care, and obstetric racism²⁻³

Actionable factors

- Structural racism
- Implicit bias



1. MMWR /September 6, 2019 /Vol. 68 /No. 352.

2. J Clin Anesth, 2020. 65:1098213.

3. Med Anthropol, 2019: 38:560-73

Methods

PubMed Literature search - limited to original research on racial inequities related to 7 major obstetric anesthesia outcomes:

1. Labor pain, anticipated/actual neuraxial labor analgesia (epidural) use and management of complications
2. Management of Anesthetic complication related to neuraxial anesthetic
3. Failure of epidural for labor and/or CS
4. General anesthesia use for CS
5. Enhanced recovery and post-cesarean pain & opioids
6. Satisfaction with birth experience (as it related to anesthesia/pain management)

Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA):

- 540 articles (excluding duplicates) generated
- Search repeated 5 times (last 1/12/2023)
- Review articles, editorials and letters were excluded

8 possible dimensions of racial/ethnic inequities:

Patients' perspective:

- Beliefs/preferences
- Misconceptions
- Perceived pressure (persuasion)

Patient-provider interaction:

- Language barriers
- Racial/ethnic concordance

Providers' perspective:

- Structural ("obstetric") racism
- Implicit bias
- Misconceptions

Results

Our search identified 32 original studies published between 2000-2023

- Retrospective N=15
- Prospective observational N=1
- RCT N=1
- Qualitative/survey N=12
- Mixed Methods N=1
- Interventional N=1
- Cross sectional N= 1

Implicit bias

- Mentioned in the discussion of 10/32 studies
- NEVER actually assessed

Racism

- Mentioned in the discussion of 7/32 studies

	Labor pain, anticipated/actual neuraxial analgesia use	Management of anesthetic complication related to neuraxial anesthetic	Failure of epidural for labor and/or cesarean delivery	General anesthesia for cesarean delivery	Enhanced recovery and post-cesarean pain & opioids	Satisfaction with birth experience (related to pain/anesthesia)
Studies (N=32) *	N=16 (2000-2022)	N=1 (2022)	N=1 (2014)	N=4 (2016-2021)	N=7 (2019-2022)	N=6 (2000-2022)
Number of original studies (N=) measuring the following dimensions						
Patients - beliefs/preferences	N=8	N=0	N=1	N=0	N=0	N=6
Patients - misconceptions	N=6	N=0	N=1	N=0	N=0	N=0
Patients - perceived pressure (persuasion)	N=1	N=0	N=1	N=0	N=0	N=2
Language barriers	N=3	N=0	N=0	N=0	N=0	N=2
Patient-provider racial & ethnic concordance	N=0	N=0	N=0	N=0	N=1	N=1
Structural racism (“obstetric racism”)	N=0	N=0	N=0	N=1	N=2	N=2
Providers - Implicit bias	N=0	N=0	N=0	N=0	N=0	N=0
Providers - Misconceptions	N=2	N=0	N=1	N=0	N=0	N=1

Discussion

Our search allowed to identify the volume and content of obstetric anesthesia publications related to racial inequities

GOAL

- Determine whether possible dimensions of racial inequities → alter obstetric anesthesia outcomes (e.g. lower labor epidural use, higher general anesthesia use for CS, poorer pain management)
- Implicit bias and structural racism APPEAR at the forefront of discussions regarding maternal health (in)equity - OFTEN mentioned but BARELY studied

FURTHER EFFORTS

- Determine the right methodology to EVALUATE implicit bias and structural racism in clinical trials
- Address these factors → reduce maternal morbidity and mortality