

Socioeconomic deprivation, ethnicity & postpartum outcomes following cesarean delivery: A prospective multicenter cohort study.

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Introduction

- Disparity of maternal outcomes in different socioeconomic and racial-ethnic groups are well recognized.
- We explored the relationships between ethnicity, socioeconomic status and postpartum recovery following childbirth in the hospitals in England.

Methods

- Study was performed through the planned analysis of prospectively collected data from the ObsQoR study.
- ObsQoR is a multicentre study of postpartum recovery in patients undergoing anesthetic intervention during the peripartum period.
- Eligible cesarean deliveries were recruited, Index of Multiple Deprivation (IMD) was used as a measure of socioeconomic status, providing an area-level measure of deprivation from residential postal codes.

Methods:

Data collected included:

- Demographic, maternal, obstetric, neonatal & anesthetic
- Postpartum Length of stay, readmission and complication rates were recorded
- Patient centric outcomes of pain, EQ-5D-5L, ObsQoR-10 scores during the inpatient and outpatient period.

Analysis:

- Assessment of differences between reported ethnic groups.
- Linear regression analyses for adjusted and unadjusted models were performed

Results:

- 1000 patients included in the analyses.
- No difference between ethnic groups: Age, BMI, ASA status, parity, gestational age or PMHx (except for diabetes and sickle cell disease).
- More Asian, Black and Mixed ethnicities were seen in the more deprived quintiles.

Disparity in LOS:

- White patients had shorter LOS than Asian and Black patients (35hrs [27.6-55.6] vs 44.3 [31.0-70.5] $p=0.021$, and 48.9 [32.9-74.8] $p=0.009$ respectively)



Results:

Disparity in pain scores:

- White patients had lower pain scores on day 1 and 30.
- White patients reported higher inpatient ObsQoR-10 scores

At day 1:

- Asian patients reported worse pain ($\beta = 0.79$ (0.30, 1.28); $p = 0.002$)
- Black patients reported higher global health VAS scores ($\beta = 7.02$ (2.05, 11.99); $p = 0.006$).

At 30 days:

- Asian patients reported worse pain scores ($\beta = 0.65$ (0.29, 1.02); $p < 0.001$).
- No differences were seen in readmission rates or complications across all patient groups

Discussion:

- National study demonstrates disparities are seen in obstetric patients in England.
- Differences in recovery related to ethnicity status even when correcting for socioeconomic group.
- Further work is required to understand the underlying reasons for and methods to reduce this disparity.

