Differences in background characteristics between Asian and White obstetric patients: A tale of two centers

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Introduction

- We sought to describe the populations of Asian and White patients delivering at two hospitals.

Methods

- Retrospective case control study of all delivering patients self-identified as Asian or White race at two urban academic centers in 2019-2020
- Hospital A is in a Midwestern state with no Medicaid expansion; Hospital B is in a Northeastern state with universal healthcare and large Asian immigrant population
- Cases were deliveries at Hospital B, and controls were deliveries at Hospital A; background characteristics were compared using Chi-square and Fisher's-exact tests, then stratified by race
- Logistic regression with backwards selection was used to determine statistical significance

Results

- Of 4855 deliveries, 3264 (67.3%) occurred in Hospital A and 1591 (32.7%) in Hospital B
- Hospital A had a lower percentage of Asian patients than Hospital B (8.0% vs 23.6%; p<0.001).
- Hospital B had significantly higher odds of AMA (OR 1.44, 95%CI 1.27-1.64) and public insurance (OR 1.33, 95%CI 1.16-1.52), and lower odds of nulliparity (OR 0.03, 95%CI 0.02-0.05), tobacco use (OR 0.08, 95%CI 0.05-0.13), chronic hypertension (OR 0.46, 95%CI 0.35-0.60), and multi-fetal gestation (OR 0.64, 95%CI 0.49-0.83)
- Asian patients at Hospital B had significantly higher odds of public insurance (OR 2.85, 95%CI 1.96-4.20)
- Significant interaction noted between hospital and race for AMA status (p=0.032) and public insurance (p<0.001)

Discussion

- Significant background differences were identified in and between Asian and White patients delivering at two hospitals
- The stereotype and use of Asian race as a monolith cannot be supported by our results
- More research needed to disaggregate data for Asian patients

Significant background differences identified between delivering patients in two urban hospitals are associated with Asian and White race. **The stereotype and use of Asian race as a monolith cannot be supported by our results.**

Table 1. Differences in background characteristics of Asian and White obstetric patients

Variable (%)	Hospital A N=3264 (67.3)	Hospital B N=1591 (32.7)	OR (95% CI)
Race			
White	3002 (92.0)	1215 (76.4)	**3.54 (2.98-4.23)**
Asian	262 (8.0)	376 (23.5)	
Advanced Maternal Age	943 (28.9)	588 (40.0)	**1.44 (1.27-1.64)***
White (% of all White)	854 (28.3)	458 (37.7)	**1.52 (1.32-1.76)**
Asian (% of all Asian)	89 (34.0)	130 (34.6)	1.03 (0.73-1.45)
Nulliparous	1421 (43.5)	41 (2.6)	**0.03 (0.02-0.05)**
White (% of all White)	1295 (43.1)	32 (26.3)	**0.04 (0.02-0.05)**
Asian (% of all Asian)	126 (48.1)	9 (2.4)	**0.03 (0.01-0.05)**
Public insurance	855 (26.2)	510 (32.1)	**1.33 (1.16-1.52)****
White (% of all White)	802 (26.7)	352 (29.0)	1.12 (0.96-1.30)
Asian (% of all Asian)	53 (20.2)	158 (42.0)	**2.85 (1.96-4.20)**
Tobacco use during pregnancy	381 (11.7)	17 (1.1)	**0.08 (0.05-0.13)**
White (% of all White)	378 (12.6)	17 (1.4)	**0.10 (0.06-0.16)**
Asian (% of all Asian)	3 (1.1)	0 (0.0)	0.00 (0.00-1.68)
Chronic hypertension	308 (9.4)	73 (4.6)	**0.46 (0.35-0.60)**
White (% of all White)	301 (10.0)	63 (5.2)	**0.49 (0.36-0.65)**
Asian (% of all Asian)	7 (2.7)	10 (2.7)	1.00 (0.34-3.12)
Diabetes	68 (2.1)	21 (1.3)	0.63 (0.36-1.04)
White (% of all White)	64 (2.1)	15 (1.2)	0.57 (0.30-1.02)
Asian (% of all Asian)	4 (1.5)	6 (1.6)	1.05 (0.25-5.09)
Multi-fetal gestation	250 (7.7)	80 (5.0)	**0.64 (0.49-0.83)**
White (% of all White)	240 (8.0)	74 (6.1)	**0.75 (0.56-0.98)**
Asian (% of all Asian)	10 (3.8)	6 (1.6)	0.41 (0.12-1.26)

OR, odds ratio
CI, confidence interval
*significant interaction for hospital race and hospital, p=0.032
**significant interaction for hospital race and hospital, p<0.001
Statistically significant results are bolded