

Assessing Post-Mastectomy Breast Reconstruction Outcomes by Race & Procedure Type

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Objective

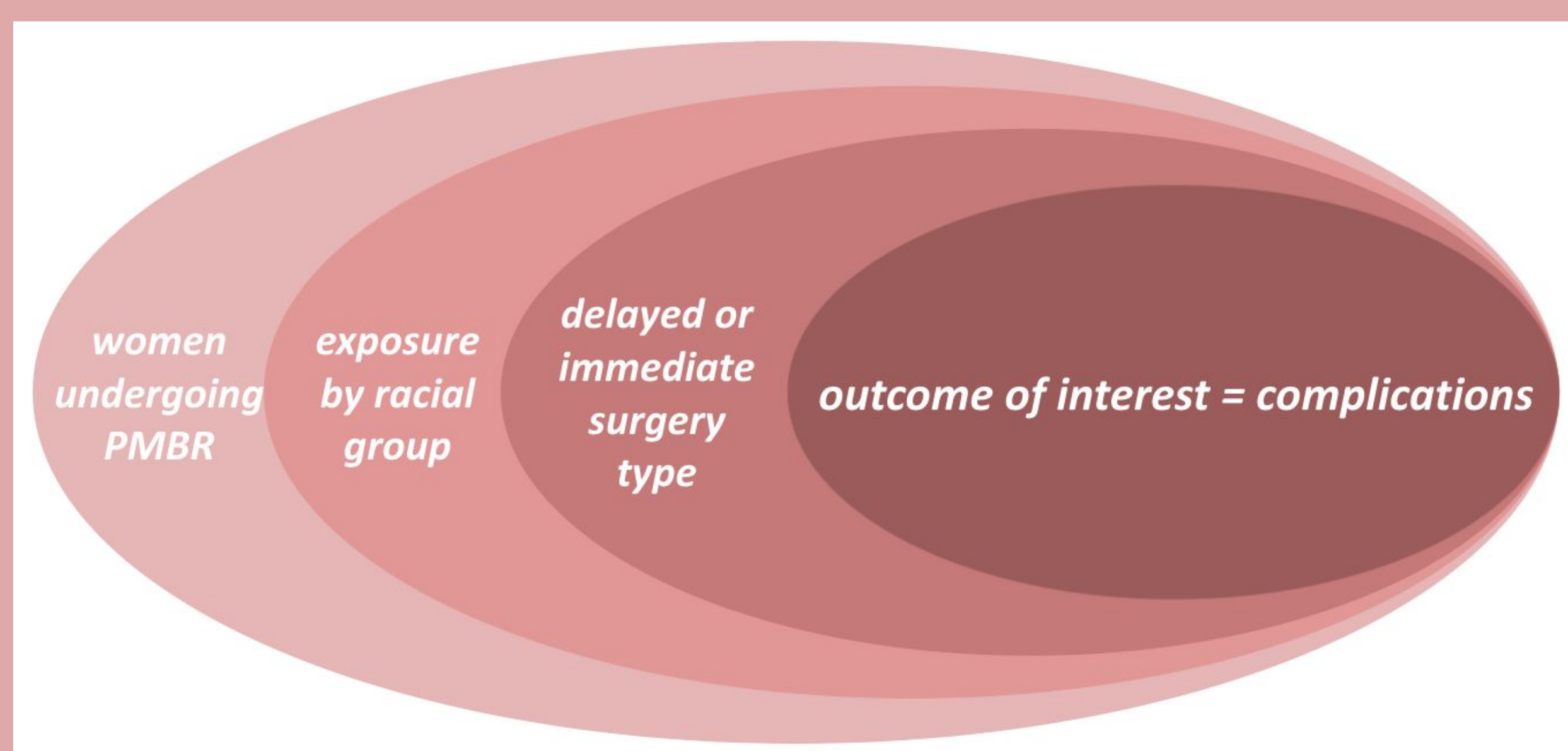
To determine whether or not race is a factor in adverse PMBR outcomes between black and white women.

Background

- Women of color experience more adverse outcomes in surgeries compared to white women due to reasons like quality of care, insurance,¹ and socioeconomic status.²
- For PMBR specifically, complication rates tend to differ between immediate and delayed PMBR^{3,4} and data shows that black women are more likely to receive immediate and simultaneous in-patient mastectomy.⁵

Methods

- *Study design:* Utilization of MROC and ACS-NSQIP data which includes demographics, prevalence of PMBR, complication rates, and patient-reported outcomes.
- Data analyzed from 2005-2014 and included a total of 92,960 participants.
- In addition to examining overall complication rates and adverse outcomes by race, this data was further stratified via the surgical technique type of Immediate or Delayed reconstruction.
- One-way ANOVA testing was conducted for patient-reported outcomes



Results

Sample Characteristics:

- ACS-NSQIP: 82.9% White, 11.2% Black/AA, 5.3% Asian/API
- MROC: 88.1% White, 6.3% Black, 5.6% Other

Table 1: Percentages of White and Black Women who underwent Immediate or Delayed Reconstruction

P-value = .309; NOT significant

Variable	Immediate	Delayed	P Value
White (0)	92.5%	7.5%	.309
Black (1)	95.4%	4.6%	

Table 2: T-Test Results Comparing Complication Rates and Technique Type

p-value = 0.69; NOT significant

Variable	No Complication (0)	Any Complication (1)	P Value
Immediate	65.84%	34.16%	.69
Delayed	70.19%	29.80%	

Table 3: Patient reported outcomes comparing pre and post-operative scores in categories of sexual, physical and psychosocial wellbeing

p-value for physical wellbeing = 1; NOT significant

P-value for sexual and psychosocial wellbeing = <0.0001; SIGNIFICANT

Patient-Reported Outcomes	Immediate	Delayed	p-value
Physical Wellbeing (1)	3.5	25.4	1.0
Sexual Wellbeing (2)	-2.7	22.7	<0.0001
Psychosocial Wellbeing (3)	-2.2	4	<0.0001

Conclusion

PMBR Outcomes

- No statistically significant difference between outcomes of immediate vs. delayed PMBR
- No statistically significant difference in complication rates between white and black women.

Patient-Reported Outcomes

- Significant differences in the categories of sexual and psychosocial wellbeing between immediate and delayed procedures
- No significant difference in the category of physical wellbeing.

Since there was no significant difference in the category of physical wellbeing, this, in tandem with lack of significant data for complication rates suggests that while both techniques may not pose issues for physical health or incidence of complications, they play a role in a patient's sexual and mental health.

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Policy Implications:

Guidelines in both medical and public health education are directed by standards set within the field. Further research that identifies disparities and particular aspects of the care process will help redefine standards and guidelines for future healthcare providers. Additionally, by conducting such research, health disparities in the healthcare industry will no longer be overlooked.

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