Role of Surgeon Discussions in Post-Mastectomy Reconstruction Racial Disparities

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Background

- Surgeons often serve as "gatekeepers" of breast surgery, influencing patient decisions through the options they choose to discuss.
- Surgeons, therefore, may play a key role in perpetuating or mitigating disparities in breast reconstruction.

Objective

- To identify patient factors associated with whether surgeons discuss post-mastectomy reconstruction with patients.

Methods

- This study was a secondary analysis of Alliance clinical trial A231701CD, including survey data and transcribed surgical consults.
- We included women who were aged ≤60, underwent breast cancer surgery, and did not receive neoadjuvant therapy (n=182).
- Transcripts were reviewed by 2 or more researchers to characterize:
  - if reconstruction was discussed (yes/no)
  - who initiated the discussion (surgeon/other)
  - if surgeons recommended for, neutral, or against reconstruction
- We used multivariable logistic regression models to identify factors associated with reconstruction discussions, with the first model including patient age alone and then sequentially adding race, insurance, and income. We used chi square tests to assess patient factors associated with how reconstruction was discussed.

Results

- Patient characteristics are presented in Table 1.
- Most surgeons were female (62%), White (81%), had fellowship training (67%), and had been in practice for 15 or more years (52%).

Results

Table 1. Patient Characteristics

		n=182	%
Age	28-39	18	10%
	40-49	69	38%
	50-60	95	52%
Race	White	115	63%
	Black	40	22%
	Asian	18	10%
	Other	9	5%
Insurance	Private	143	79%
	Self-Pay/Uninsured	5	3%
	Other	34	18%
Education	Highschool diploma/GED	25	14%
	Vocational degree/some college	33	18%
	College degree	63	35%
	Graduate degree	36	20%
Income	$100,000+	63	35%
	$50,000-99,999	40	22%
	$25,000-49,999	30	16%
	<$25,000	23	13%

- The majority of patient consults discussed reconstruction (67%, n=121). Among the 61 consults that did not, most patients had a strong preference for breast-conserving surgery (n=53). Only a few discussed mastectomy but not reconstruction (n=8).

Our findings suggest that older age and Black patient race is associated with a lower likelihood of discussing reconstruction during initial surgical consultation for breast cancer.

Table 2. Multivariable Logistic Regression Models Assessing Patient Factors Associated with Discussion of Post-Mastectomy Reconstruction

	Model 1	Model 2	Model 3	Model 4
	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)
Age	0.93 (0.89-0.97)*	0.92 (0.88-0.97)*	0.92 (0.87-0.97)*	0.92 (0.87-0.97)*
Race				
White		Ref	Ref	Ref
Black		0.39 (0.18-0.84)*	0.47 (0.21-1.1)	0.51 (0.22-1.2)
Other		0.51 (0.20-1.3)	0.50 (0.19-1.3)	0.51 (0.19-1.3)
Insurance				
Other/Self-Pay			Ref	Ref
Private			1.8 (0.78-4.1)	1.8 (0.65-5.3)
Household Income				
<$25,000				Ref
$25-49,999				0.68 (0.17-2.8)
$50-99,999				0.69 (0.17-2.8)
>$100,000				1.2 (0.29-5.1)
Missing				0.58 (0.14-2.5)

**statistically significant at p<0.05; CI, Confidence Interval*

- Older patient age was associated with lower odds of discussing reconstruction (Table 2).
- In the model adjusting for age alone, Black patient race was associated with a lower odds of discussing reconstruction. This association was not statistically significant after adding insurance and income to the model.
- In most consults, surgeons initiated the discussion about reconstruction (86%) and presented reconstruction neutrally (67%). Surgeons made suggestions for or against reconstruction in 27% and 6% of consults, respectively.
- There was no statistically significant difference in how reconstruction was discussed by patient race (p=0.30).

Conclusions

- The strength of the association between Black patient race and lower odds of the surgeon discussing reconstruction was tempered by insurance type and income, although the pattern of findings remained consistent.
- This suggests that reconstruction disparities may partially stem from a lack of conversation during the initial surgical consultation.
- Additional work should focus on developing interventions to increase consistency in discussions about surgical options during initial breast cancer surgical consultations.

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