

Examining Racial Disparities in Breast Cancer Treatment and Reconstruction

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Background

Breast cancer is the most common and the second most lethal malignancy affecting women in the United States.¹ Despite advances in diagnosis and treatment, racial disparities in breast cancer outcomes continue to persist. Studies show that Black women are more likely to die from breast cancer at every age, and are less likely to obtain adequate treatment compared with White women.^{2,3} Breast reconstruction after mastectomy is also an important component of care that has been shown to increase quality of life in breast cancer survivors, however Black women are both less likely to receive reconstruction and more likely to report poorer outcomes compared to their White counterparts.⁴

Research Objectives

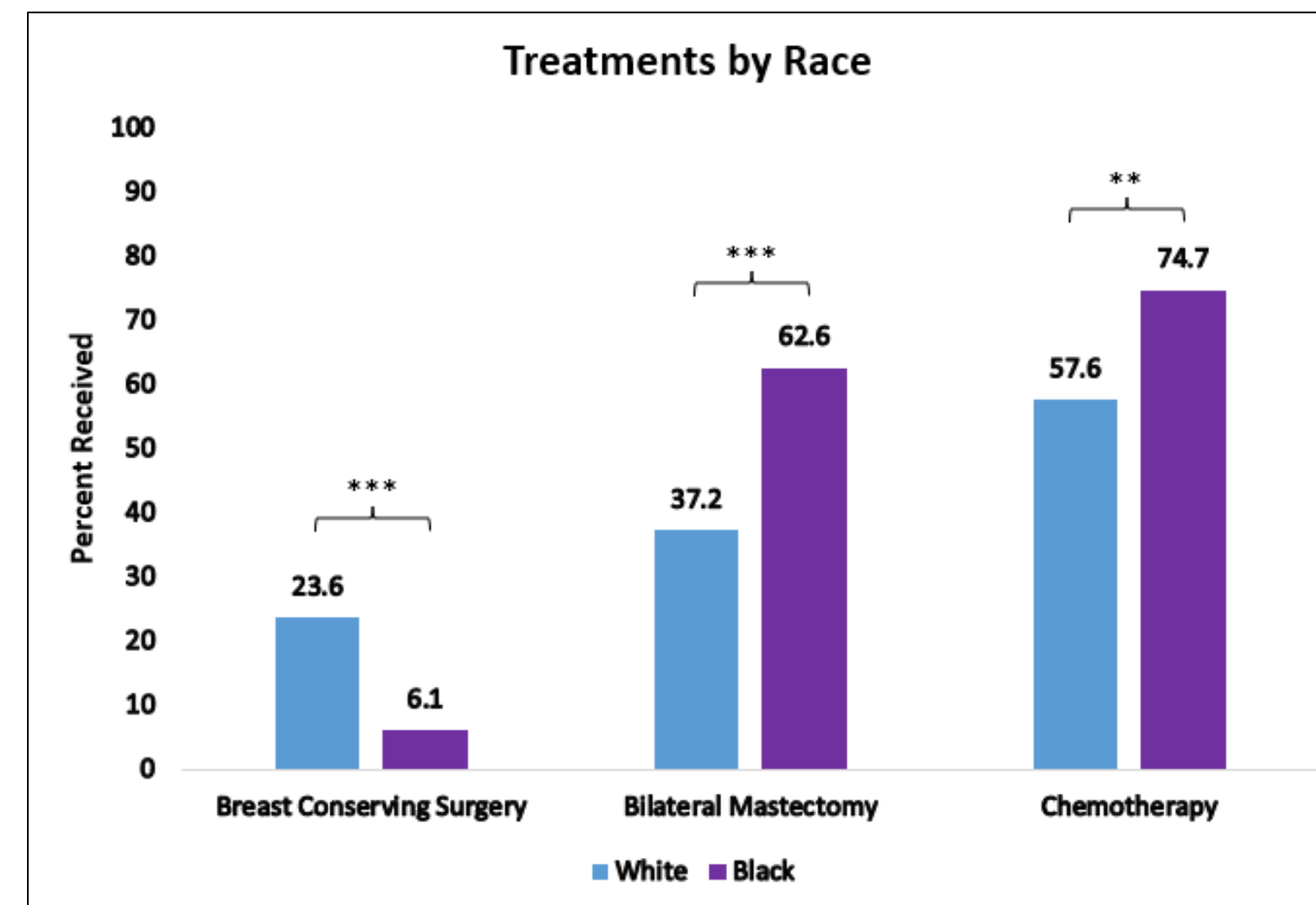
This study examines differences in cancer stage and characteristics, treatments received, and reconstruction rates and outcomes among a racially diverse group of women. Existing data largely focuses on the experiences of Caucasian women, thus this study aims to fill in critical knowledge gaps in underrepresented Women of Color (WOC). Exploring these factors and how they relate to breast cancer in a broader demographic can highlight disparities and contribute to a more equitable understanding of healthcare outcomes.

Methods

- 413 diverse adult females (250 White, 99 African American, 29 Hispanic, 24 Asian, and 11 American Indian/Alaska Native women) with a history of surgical intervention for breast cancer were surveyed from May 2023 to June 2023.
- Conducted by Kantar Lightspeed LLC, the computer-based survey combined a 45-item questionnaire, developed with the BRAVE Coalition, the 13-item BREAST-Q Satisfaction with Breasts subscale, and several open response questions.
- It focused on breast cancer stage and tumor characteristics, treatments received, and reconstruction rates and outcomes.

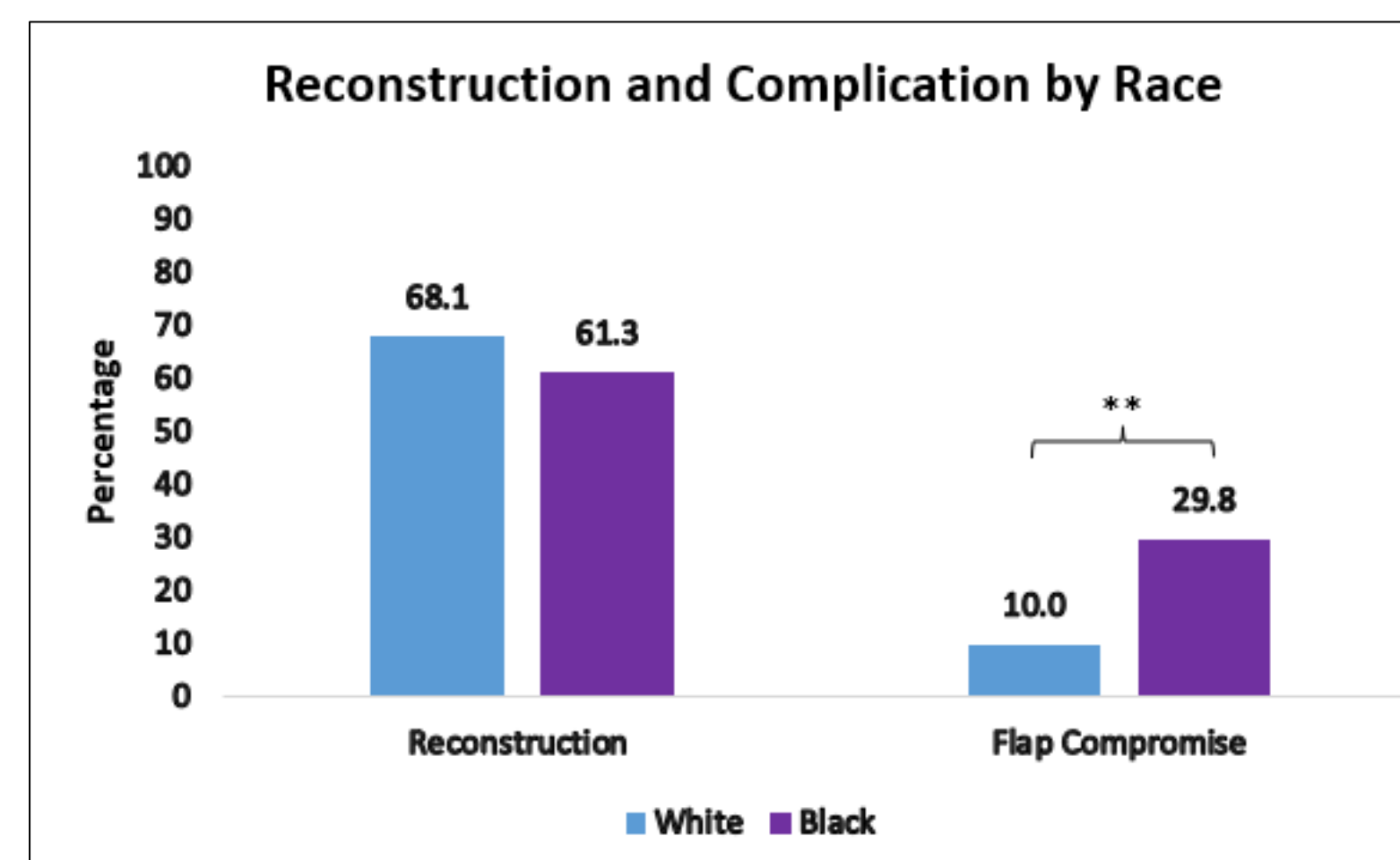


Fig 1. Breast Cancer Treatments Received by Race



Black women were significantly more likely than White women to undergo more aggressive cancer treatment in the form of bilateral mastectomy ($p<0.001$) and chemotherapy ($p=0.003$).

Fig 2. Breast Reconstruction and Outcomes by Race



Despite no significant difference in rates of breast reconstruction in women receiving mastectomy, Black women were significantly more likely than White women to experience flap compromise post-reconstruction ($p=0.002$).

Results

- White women were significantly more likely than Black women to receive breast-conserving surgery ($p<0.001$).
- Black women were significantly more likely than White women to receive bilateral mastectomy ($p<0.001$) and to undergo chemotherapy ($p=0.003$).
- Pairwise comparison of breast cancer stage at diagnosis, her2 status, and triple negative status showed no statistically significant difference between race groups ($p=0.37$, $p=0.14$, and $p=0.15$, respectively).
- Post-reconstruction, Black patients were significantly more likely than White patients to experience complications in the form of flap compromise ($p=0.002$).
- Post-mastectomy, White women received reconstruction at higher rates compared to Black women, however this difference did not reach significance.

Limitations

- Due to small sample sizes, reliable conclusions with Hispanic, Asian, and American Indian/Alaska Native women were unable to be drawn. This is a limitation reflected in the field and the broader literature as well.
- Our research showed no significant difference between race groups in reconstruction rates post-mastectomy, however this may be a result of our participant recruitment process and the sample surveyed, rather than a true reflection of population at large.

Conclusions

- Despite no significant differences in breast cancer stage and tumor characteristics, race was found to be significantly associated with the type of breast cancer treatment received.
- White women were over three times more likely to undergo breast conserving surgery compared to their non-White counterparts.
- Black women were significantly more likely to receive more aggressive cancer treatment in the form of bilateral mastectomy and chemotherapy compared to their White counterparts.
- Although there was no significant difference in rates of reconstruction between Black and White women post-mastectomy, Black women were significantly more likely than White women to experience flap compromise post-reconstruction.
- The present data suggests that Black women are receiving more aggressive treatments independent of cancer stage and characteristics, as well as experiencing greater post-reconstruction complications compared to White women.
- The results of this study highlight the need for more research into the underlying causes for these disparities in treatment and reconstruction outcomes in WOC.