Racial and Ethnic Variations in Clinical and Patient-Reported Outcomes Following Breast Reconstruction

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Introduction: Existing studies evaluating disparities in breast reconstruction have assessed variations in types and rates of reconstruction among racial and ethnic minorities.[1-3] However, variations in postoperative outcomes for minority populations remain understudied.[4] The objectives of this study are to evaluate racial and ethnic variations in complications and patient-reported outcomes (PROs) following breast reconstruction.

Materials and Methods: The Mastectomy Reconstruction Outcomes Consortium is an 11 center, prospective cohort study assessing clinical and patient-reported outcomes following autologous and implant-based breast reconstruction. Race and ethnicity data were available by self-report and medical records. Complications (major or any) and reconstructive failures at one-year post-reconstruction were recorded. PRO measures included BREAST-Q subscales for satisfaction with breasts, sexual, psychosocial, and physical well-being, as well as the PROMIS subscale for physical functioning. Mixed-effects logistic regression models were used to assess clinical outcomes and mixed-effects linear models were used to evaluate patient reported outcomes at one-year postoperatively.

Results: A total of 2,476 women with known race and ethnicity information had one-year follow-up data, including 2,058 (83.1%) White, 146 (5.9%) Black, 133 (5.4%) Hispanic or Latino, and 139 (5.6%) patients from other minority groups. Patient age, body mass index, education, household income, laterality, diabetes status, and indication for mastectomy differed by race and ethnicity. Clinical outcomes were available for all women, but PROs at one-year were completed by 1,456 (response rate = 74.1%) White, 65 (47.4%) Black, 74 (56.9%) Hispanic or Latino, and 80 (59.3%) patients from other minority groups. To account for differential non-response rates across race groups, all PRO analyses were weighted by the inverse of the response probability, in addition to adjusting for baseline covariates. At one-year postoperatively, no differences were noted in clinical outcomes by race or ethnicity, but black women experienced higher psychosocial (P=.001) and sexual well-being (P=.004) relative to white women.

Conclusion: Despite a growing body of literature identifying disparities in clinical outcomes for minority populations,[5] differences in complication and failures rates across race following breast reconstruction were not significant. Furthermore, the data suggest that black women experienced a greater increase in psychosocial and sexual well-being from undergoing reconstruction. In the context of a healthcare system increasingly focused on clinical and patient-report outcomes, future studies are needed to investigate loss to follow-up among underserved populations undergoing breast reconstruction.

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