Uncovering the Socioeconomic Determinants of Breast Reconstruction Decisions Across Diverse Demographics

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Background

Breast cancer is a global public health issue. 1 Advancements in cancer treatments have improved survival rates, but the journey of recovery extends far beyond achieving remission. Breast reconstruction (BR) following mastectomy is an important component of recovery, as it has been shown to improve psychological healing, sexual well-being, and overall quality of life. 2-5 Unfortunately, socioeconomic factors, cultural norms, healthcare accessibility, educational background, and social support systems complicate decision making. 6 While previous studies have demonstrated barriers to post-mastectomy reconstruction (PMR) for lower socioeconomic status (SES) individuals, existing data lacks ethnic and educational diversity. 2-6

Research Objective

• Examine the impact of socioeconomic factors on BR decisions.
• Identify disparities in BR decision-making across a wider demographic.
• Enhance equitable understanding for post-mastectomy care.

Methods

• Participants: 413 women with a history of surgical breast cancer.
  - 250 white, 99 African American, 29 Hispanic, 24 Asian, and 11 American Indian/Alaskan Native women (self-identified)
  - Survey Details: 76-item computer-based questionnaire developed with BRAVE (Breast Restoration Advocacy & Education) Coalition and administered via Kantar Lightspeed, LLC.
  - Included BREAST-Q sub-scales and explored relationships between socioeconomic factors—income, education, social support, and information access—and BR decisions. Chi-square tests, Cramer’s V’s, and odds ratios were utilized for statistical analyses.

Results

• Highly statistically significant associations were found between:
  - Annual income and Breast Reconstruction (Figure 1) (P < 0.001)
    • $49,999 → 51 had reconstruction vs. 61 who did not
    • $50,000 to $74,999 → 36 vs. 24
    • $75,000 to $99,999 → 30 vs. 19
    • ≥ $100,000 → 88 vs. 18

Figure 1. Income Level vs. Breast Reconstruction Decision

• Socioeconomic status, particularly education and income, significantly impacts BR decisions.
  - Some College→ 28 vs. 29
  - Bachelor’s Degree → 27 vs. 13
  - Master’s or Higher → 59 vs. 13

Figure 2. Education Level vs. Breast Reconstruction Decision

• Women earning over $99,999 annually were more than 5 times as likely to have BR than women earning under $50,000 (OR=5.77, 95% CI=3.12-11.09, p<0.001).
• Women with a graduate degree were more than 3 times as likely to have BR than high school educated women (OR=3.18, 95% CI=1.52-6.98, p<0.01).
• Interestingly, associations with ethnicity, social support, and information access were not significant (P > 0.1, P > 0.1, and P < 0.5, respectively).

Limitations

• Self-selection bias due to volunteer participation
• Cross-sectional design limits ability to infer causality
• Subjectivity in self-reported data
• Limited generalizability
• Exclusion of non-binary individuals

Conclusions

• Socioeconomic status, particularly education and income, significantly impacts BR decisions.
  - Those findings emphasize the importance of tailored counseling for socioeconomically disadvantaged patients.
• The absence of significant ethnic differences suggests further research is needed investigating social determinants of health.
• Addressing these disparities will empower women to make more informed healthcare decisions, promoting equitable access to BR.

References