Implementation of a Patient-Based Education System Increases the Rate of Breast Reconstruction following Mastectomy in an Urban Center
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Background:
Despite documented benefits of breast reconstruction after mastectomy, a large disparity still exists between rates of reconstruction in the indigent population compared to insured patients receiving care at cancer centers. We hypothesized this may be due in part to inadequate preoperative patient education about breast reconstruction. Here we investigated whether implementation of a patient-based breast reconstruction education system would increase the rates of reconstruction in an indigent population at a public hospital.

Methods:
A prospective IRB approved mixed method study was performed using a novel breast reconstruction questionnaire. Questionnaires were distributed following a diagnosis of breast cancer, prior to plastic surgery consultation. Patient education was performed by a dedicated plastic surgeon using language-specific multimedia and educational tools.

Results:
Fifty-four patients (7/2010-2/2011) enrolled in our study, all initially uninsured. Over half the patients (52%) had no knowledge about breast reconstruction options prior to consultation, consistent with previous reports. Patient education significantly increased the percentage of patients who underwent breast reconstruction (75.9% vs. 46.6%, p=0.011) and most notably among Blacks (100% vs. 62.5%, p<0.001) and Asians (73.3% vs. 34.0%, p=0.001). Furthermore, directed patient education increased the percent of implant-based reconstruction (41.5% vs. 24.6%, p<0.048), with a corresponding decrease in autologous reconstruction (58.5% vs. 75.4%, p<0.05). Patients who received language-specific multimedia education were more likely to undergo breast reconstruction (odds ratio = 3.62, 95% CI: [1.9 to 7.0]), and among the operative group, were more likely to get implant-based reconstruction (odds ratio = 2.17, 95% CI: [1.04 to 4.49]).

Conclusions:
Here we demonstrate that patient education is a major factor in decision making for breast reconstruction. Further, implementation of a directed patient-based educational system significantly increases the overall rate of breast reconstruction in an indigent population, and increases the percentage of implant-based reconstruction. An active effort should be made to implement patient education systems in public hospitals to ensure equal opportunities to breast reconstruction and improve outcomes in this at-risk population.

References: