

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 centers¹. 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 reports². 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:

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2. Heller, Lior M.D.; Parker, Patricia A. Ph.D.; Youssef, Adel M.D., Ph.D.; Miller, Michael J. M.D. Interactive Digital Education Aid in Breast Reconstruction. *Plast Reconstr Surg.* 122(3): September 2008, 717-724