of interest. Recursive partitioning was used to determine a mFI threshold predictive of complications.

RESULTS: Of 70,339 patients identified as above, 9,931 had a complication associated with their procedure. mFI of 0.12 (±0.11) was calculated for these patients and was significantly greater than 0.077 (±0.85) for patients with no complications (p<0.001). When examining mFI correlation with Clavien-Dindo Grade IV complications (n=2,541), mFI once again was significantly greater (0.16±0.12) than those with no Grade IV complications (0.080±0.09; p<0.001). Multivariate analyses also showed that all individual factors of the mFI (diabetes mellitus, hx of MI, etc.) were predictive of any complications and Grade IV complications (p<0.001). Calculated odds ratios showed that higher pre-operative mFI also had a 7.77x likelihood of having any complication, 35.71x likelihood of having a Grade IV complication, 3.85x likelihood of having a surgical site complication, and a 62.05x likelihood of death (all p<0.001). Recursive partitioning revealed that a threshold of greater than 3 indicators of mFI conferred a 2.07x likelihood of a Grade IV complication and a 2.33x likelihood of death (both p<0.001).

DISCUSSION: We have shown that frailty as measured by mFI is an accurate predictor of morbidity, complications, and mortality in patients undergoing CAWR. Additionally, we have determined a frailty threshold of complications and mortality rate for plastic surgeons to consider during patient selection.

Impact of Breast Reconstruction Patients on Cosmetic Practice

Presenter: Danielle Cooper, MD
Co-Authors: Ali Qureshi, MD; Ketan Sharma, MD, MPH; Marissa Tenenbaum, MD; Terry Myckatyn, MD
Affiliation: Washington University of St. Louis, St. Louis, MO

INTRODUCTION: Many patients seek breast reconstruction as part of their treatment after mastectomy for breast cancer. While reconstructive surgery helps to improve a patient’s self-image, some patients seek cosmetic procedures in addition to further improve their perceived body image. The purpose of this study is to look at the rate of conversion of primary breast reconstruction patients to receiving either non-invasive or surgical cosmetic procedures after reconstruction.

METHODS: A retrospective review of primary breast reconstruction patients of the two senior authors was conducted from January 2014- December 2015. Information including types of cosmetic procedures received and time to first cosmetic procedure were obtained. Time to first cosmetic procedure was assessed from date of initial reconstructive surgery through December 2017.

RESULTS: There were 289 primary breast reconstruction patients seen from January 2014- December 2015. A total of 30 (10.4%) patients underwent at least 1 cosmetic procedure after reconstructive surgery through December 2017. The average time to first cosmetic procedure was 8.61 months +/- 6.47 after their initial reconstructive surgery. Majority of patients (20, 66.7%) underwent non-invasive cosmetic procedures only. Six (20%) patients underwent a surgical cosmetic procedure only and 4 (13.3%) patients underwent both non-invasive and surgical cosmetic procedures. For patients that underwent a surgical procedure they have thus far only undergone 1 surgery. For patients that had non-invasive cosmetic procedures, they averaged 4.96 procedures (range 1 to 22).

CONCLUSION: While breast reconstruction after breast cancer is a common path that women take, some may seek cosmetic procedures to further improve their self-image. For our senior authors this resulted in an ~10% conversion rate over 4 years of primary breast reconstructive patients. On average patients underwent a procedure about 9 months after the initial reconstructive surgery. Majority of patients underwent non-invasive cosmetic procedures averaging about 5 treatments per patient. Surgical patients underwent 1 surgery each over the timeframe.

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Optimization of Clinical Care and Research Using a Novel Digital Data Collection Tool: A Pilot Study

Presenter: Abbas Peymani, MD, MS
Co-Authors: Austin D. Chen, NONE;
Sabine A. Egeler, MD; Johannes G.G. Dobbe, PhD; Arriyan S. Dowlatshahi, MD; Marek A. Paul, MD; Geert J. Streekstra, PhD; Simon D. Strackee, MD, PhD; Samuel J. Lin, MD, MBA, FACS

Affiliation: Beth Israel Medical Deaconess Center/Harvard Medical School, Boston, MA

BACKGROUND: The application of new technologies in the field of plastic surgery has brought forth a number of tools to optimize patient care, ranging from virtual or augmented reality, robotic devices, imaging systems, or social media platforms. However, there has been little information regarding the development and utilization of digital data collection tools both for optimization of clinical care as well as research despite the limitations of traditional paper-based and digital data collection forms. The aim of our study was to demonstrate the utility of a novel digital data collection tool built specifically for patient-reported outcomes.

METHODS: In July 2016, we developed a digital data collection platform named ‘SURVY’ with the intent to optimize collection of patient data, specifically patient-reported outcomes. The digital tool is a web-based secure server designed for the upload of any survey, which once filled, would immediately populate into an analyzable dataset. We prospectively enrolled ten outpatient hand clinic patients to compare data collection performed with SURVY (n=5) to that performed with traditional paper-based forms (n=5) using the QuickDASH survey. We compared time to fill out the survey, as well as total data processing time (including calculation of scores). Three plastic surgeons (A.S.D., M.A.P., and S.J.L.) rated the ease-of-use of SURVY and paper-based forms using the System Usability Scale (SUS). Statistical analyses were performed using independent samples t-tests.

RESULTS: No significant differences were found in time spent filling out SURVY versus a traditional paper-based version of the QuickDASH (seconds, 32.4±10.0 vs. 59.6±34.9; P=0.133). There were significant differences in data processing time between SURVY and paper-based forms (seconds, 1.1±0.2 vs. 24.0±6.2; P<0.001). The mean ease-of-use score, independently determined by three plastic surgeons, was significantly higher for SURVY (SUS-score, 90.7±6.1 vs. 30.7±14.5; P=0.003).

CONCLUSION: We implemented a novel digital platform to collect PROMs, built from the ground up by physicians to streamline the workload in clinical and research settings. The platform performs significantly better than traditional paper-based forms when evaluated by metrics of provider time and ease-of-use. This could further optimize patient data collection and improve research productivity on a global scale.

A Dedicated Quarterly Research Meeting Increases Resident Research Productivity

Presenter: Daniel P. Donato, MD

Co-Authors: Kathleen A. Holoyda, MD; Andrew Simpson, MD, FRCSC; Neal Moores, MD; Jayant Agarwal, MD

Affiliation: University of Utah, Salt Lake City, UT

PURPOSE: Research is a vital component of a plastic surgery residency. Residents participating in research are better able to critically evaluate literature encouraging residents to stay current throughout their careers1. Programs benefit from increased research by increasing their academic reputation and are able to attract stronger applicants, as more competitive applicants view a strong research infrastructure as more important than weaker applicants.1,2 In order to foster collaboration and resident involvement, a quarterly research meeting was implemented to discuss all ongoing research projects within our division. We report the effectiveness of implementation of a dedicated division wide quarterly research meeting in increasing the academic productivity of plastic surgery residents.

METHODS: Beginning in 2015, the Division of Plastic Surgery at our institution implemented a dedicated quarterly research meeting. Academic productivity was assessed by number of publications in peer reviewed journals, oral presentations at national meetings, and oral presentations at regional meetings. We examined the change in productivity before and after the implementation of the quarterly meeting. Unpaired t-test was used to compare temporal differences.

EXPERIENCE: 3 years of data prior to the implementation of the quarterly meetings and 2 years of data after the implementation of the quarterly research meeting.