Abstract: Institutional Diversity in Academic Plastic Surgery: A Collaborative Solution to Resource Limitations

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RESULTS: From 2000–2013 the proportion of female surgeons among all female physicians has remained constant at 12–13%. The ratio of female-to-male surgeons and residents has increased over time in all surgical specialties. While females outnumber males in one surgical specialty (obstetrics and gynecology), the female-to-male ratio in neurosurgery, orthopedic surgery, and thoracic surgery is 1:10 or higher. This discrepancy is lower among resident physicians (1:6 or lower). Presently, the female-to-male ratio of practicing surgeons in plastic surgery is approximately 1:5 with a smaller discrepancy among plastic surgery residents (integrated: 1 to 1.5; independent: 1 to 3.0). The proportion of Asian female surgeons has increased across all specialties.

CONCLUSION: Although the gender gap is narrowing, women continue to be underrepresented in most surgical specialties including plastic surgery. However, this discrepancy appears to be less pronounced among practicing plastic surgeons and trainees. Interestingly, the proportion of Asian female surgeons has increased over time across all specialties. Additional studies are needed to determine reasons for increased participation of women of all ethnicities in the various surgical specialties to ensure a diverse future workforce.

Institutional Diversity in Academic Plastic Surgery: A Collaborative Solution to Resource Limitations

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INTRODUCTION: The current climate of healthcare reform and research funding restrictions presents new challenges for academic plastic surgery to overcome.1,2 Increasing collaboration with non-academic institutions has been hypothesized as a potential solution, and private industry support has been associated with overall higher citation and publication rates in the general biomedical literature.3 However, it remains unknown whether this is true within plastic surgery. This study seeks to analyze recent publication trends in Plastic and Reconstructive Surgery (PRS), the leading journal in the field, to evaluate any changes in institutional collaboration over time.

METHODS: A retrospective analysis of PRS from 2012–2016 was undertaken, and bibliographic data were retrieved for all original research and discussion articles. Authors’ institutional affiliations were categorized as academic, private, government, or combinations of these (defined here as institutional collaborations). Annual National Institutes of Health (NIH) funding data were also collected over the same time period and inflation-adjusted for 2016 US dollars (USD). Trends over time and correlation between institutional affiliation and NIH funding were analyzed with linear regression modeling, two-sided t-test on the slope parameter, and Pearson’s r correlation coefficient.

RESULTS: In total, 2,595 publications were retrieved from PRS between 2012 and 2016, of which 2,027 (78.1%) originated from academic institutions, 152 (5.9%) from private institutions, 5 (0.2%) from government institutions, 295 (11.4%) from academic-private collaborations and 116 (4.5%) from academic-government collaborations. The proportion of academic-only publications decreased from 82% (in 2012) to 76% (in 2016) of all PRS publications annually, while the proportion of institutional collaborations increased from 10% to 19% over the same time period (p=0.038). Concurrently, NIH funding declined from $33.4 billion in 2012 to a low of $30.7 billion using 2016-adjusted USD, which significant correlated with a decreasing proportion of academic-only publications (p=0.026) and increasing proportion of institutional collaborations (p=0.0053).

CONCLUSION: Traditional sources of academic research funding have been restricted during the politically and financially tumultuous recent years. Our study demonstrates that academic plastic surgery has resourcefully navigated this challenging situation by increasing research collaboration with private and government institutions. With no signs of improving access to financial resources from the National Institutes of
Health, academic plastic surgeons may consider partnering with other institutions to continue pioneering advances in the field.

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Leadership Trends in Academic Plastic Surgery

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INTRODUCTION: Effective leaders are critically important to the success and stability of a surgical division. The selection of an appropriate candidate, therefore, involves multiple variables. Previous studies have investigated institutional factors that contribute to a successful candidate. The purpose of this study is to evaluate educational and research trends in academic plastic surgery versus general surgery division chairs.

METHODS: Plastic and general surgery division chairs from Accreditation College for Graduate Medical Education (ACGME)-approved programs were evaluated for gender, advanced degrees, fellowship completion, national society leadership positions, and National Institute of Health (NIH) funding. Data was collected using institutional and national society websites and NIH Research Portfolio Online Reporting Tools. Significance of binary values was determined using a Chi-square goodness-of-fit test.

RESULTS: Seventy-three plastic surgery and 236 general surgery programs were identified. The majority of surgeons in leadership positions were males with M.D. degrees in both plastic surgery (92%, 100%) and general surgery (95%, 98%). Thirteen plastic surgeons (18%) and 43 general surgeons (18%) had advanced degrees in addition to their medical degree. Plastic surgery leaders were significantly more likely to have an additional Doctorate degree (12.3%) compared to general surgeons (6.3%), $X^2(1, N=56)=4.18, p=0.04$. General surgery chairs had a significantly higher proportion of Masters degrees (12%) compared to plastic surgeons (5.5%), $X^2(1, N=56)=4.52, p=0.03$.

Plastic surgery chairs were more often fellowship trained (90%) than general surgeons (78%), $X^2(1, N=236)=5.09, p=0.02$. A significant proportion of plastic surgery leaders held presidential positions in national societies (41%) compared to general surgery leaders (15%), $X^2(1, N=236)=23.16, p<0.01$. Overall, 27% percent of division chairs had active NIH funding – there was no difference between plastic and general surgeons.

CONCLUSION: The choice in leadership plays a vital role in the development of a surgical division. Male gender was associated with leadership positions in both plastic and general surgery. Additional Doctorate degrees, fellowship training, and national society presidential appointments were more highly associated with plastic surgery leaders as compared to general surgery leaders. Efforts should be made to increase diversity and support faculty in pursuing advanced training.

Considerations for EHR Selection for the Plastic Surgeon: A Case Study

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The purpose of this paper is to identify considerations in Electronic Health Record (EHR) selection for the plastic surgery practice. While EHR uptake has increased in the United States due to Meaningful Use Incentives, many of the system advancements have been geared toward the primary care practice, and not surgical subspecialties. This case study reports on experience with