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**PURPOSE:** Despite the ubiquitous presence of plastic surgery content on Instagram, data have remained limited to individual time points from posts within the United States. Here, we aim to provide a comprehensive analysis of Instagram users and posts pertaining to plastic surgery globally.

**METHODS:** Metadata from publicly available Instagram posts containing #PlasticSurgery were collected from December 2018 through January 2020 through an API with Node.JS, an open source JavaScript runtime environment. All posts timestamped within the timeframe were included. Data collected from the posts included username, caption, engagement, time, and tagged location. We then designed and validated a classification algorithm to characterize the user associated with each post. The data were further processed and analyzed using the R programming language.

**RESULTS:** A total of 993,137 posts from 176 countries were included. On average, there were 2,405 posts per day worldwide. The United States accounted for 40% (308,324) of the total posts where country location data were available (n = 766,815). Istanbul, Turkey was the most prolific city in the study group with 27,481 posts. The other most commonly tagged cities were Seoul (23,577), New York (22,461), Miami (13,298), and Beverly Hills (13,290). The average post received 176.2 likes (Median 37), and 6.9 comments (Median 1). Hashtag use within the post caption was also analyzed. Most commonly tagged surgical procedures differed by region. For instance, in Seoul, the most commonly tagged procedure was #VLine (4,262). For Istanbul, the most commonly tagged procedure was #Rhinoplasty (7,264), though translations of rhinoplasty accounted for additional occurrences (14,607). In the United States, surgical procedures involving breast and body contouring were more common. Users were assessed with our classification algorithm (96% sensitivity, 98% specificity, n = 285). Globally, professional accounts made up 31% (304,606) of the total sample (n = 993,137). This was similar when splitting to groups within the United States (41%) and outside of the United States (33%). International ASPS member surgeons were included by our algorithm, but comprised a smaller portion of professional accounts (12%) than did surgeons verified to be Board Certified in the United States (49%). Conversely, international physicians not verified by the ASPS comprised 82% of the professional accounts, whereas in the United States, this group made up only 40% of professional accounts. ASPS verified surgeons accounted for 20% of posts within the United States and 8% of posts overall.

**CONCLUSION:** Board-certified plastic surgeons account for only half of #PlasticSurgery posts associated with professional accounts in the United States and an even smaller proportion globally. Limitations included the current lack of a verification process through Instagram. Allowing members to link from the ASPS website to their social media accounts could serve as a solution.

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**Interactive Ipad-based Patient Education in Breast Reconstruction Planning**

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**PURPOSE:** In the ambulatory setting, one challenge physicians face is the need to address patient concerns in a brief encounter. This is especially true in consultation visits for breast reconstruction planning, where it is critical that patients are well-informed of options and associated risks. A promising solution is to use innovative educational technologies to provide a framework of understanding for patients just prior to their visit. Studies have shown that information presented in an interactive, multimodal format is better understood and retained than when presented in a static manner. We sought to determine whether an iPad-based interactive education module (iBook) covering breast reconstruction management is effective in patient education.

**METHODS:** We evaluated new patients presenting to our tertiary care plastic surgery outpatient practice for breast reconstruction consultations. Patients received a presurvey, to assess patient perception of knowledge, comfort level talking to physician, and clinic visit anxiety. Patients were then randomly assigned to 2 groups: one group received an iPad (iBook), whereas the other group received the same information in a
paper booklet. Patients reviewed the educational module prior to being seen by their physician. After the appointment, they received a postsurvey with the same questions and the “Satisfaction with Surgeon” domain of the BREAST-Q Scale. The iBook was developed for iPad using iBooks Author, a Mac OS application, and was written and illustrated by the research team. Using Hemingway editor software, all text was determined to be at a fifth grade reading level. This work was supported by The Plastic Surgery Foundation (PSF) 2019 Breast Reconstruction Awareness (BRA) Fund—Public Awareness Grant.

RESULTS: Ten new patients and 1 family member were evaluated in a 2-month period (7 iBook and 4 paper booklet). From the cohort, 82% were between 31 and 60 years old, 70% had a college or graduate degree, and 50% rated their English proficiency at advanced or native. Only patients in the iBook group significantly improved their perceived knowledge score between the presurvey and postsurvey ($t = 3.45; P = 0.016$). Compared to the paper booklet group, the iBook group had both decreased anxiety (−0.86 versus −0.25; $P = 0.7$) and an increased surgeon satisfaction score on the BREAST-Q Scale (mean score, 74.1 versus 63.0; $P = 0.096$).

CONCLUSION: The iPad-based educational module significantly improved patient-perceived knowledge. In comparison to the paper booklet group, patients receiving the iBook showed decreased anxiety and increased surgeon satisfaction approaching statistical significance. Interactive educational modalities can be beneficial to a plastic surgery practice by improving patient/family education and satisfaction, as well as decreasing visit anxiety. Providing patients and families with preliminary information can help the visit run more effectively and may help manage patient expectations. Implementation of iBooks to augment patient education should be investigated in other plastic surgery patients, other medical specialties, and different languages. Additional research with a larger cohort will be helpful in improving significance and generalizability.

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**Lipofilling Reduces Dormant Breast Cancer Outgrowth as Opposed to Adipocutaneous Flap Controls in a New Murine Model of Postlumpectomy Breast Reconstruction**

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The transfer of autologous tissue is nowadays considered the gold standard of breast reconstruction. To this end, fat grafting and flap transfer represent the 2 most common approaches. However, important concerns regarding the oncological safety of fat grafting remain unanswered. In this context, satisfactory experimental models of autologous lipofilling techniques have not been described in the literature so far. Hence, the in vivo impact of both autologous tissue transfer approaches on the outgrowth of dormant breast cancer cells retained within the surgical field has so far not been assessed experimentally. Therefore, we devised a new experimental model of lipofilling in immunocompetent mice. As part of our pilot study, murine liposaphires were analyzed and compared to adipocutaneous flaps regarding their cellular viability via Calcein AM labelling, volume retention as derived by longitudinal magnetic resonance imaging, hypoxic stress according to the Hypoxyprobe assay, angiogenesis by means of CD-31 positive vessel counts, proliferation as deduced from the Ki-67 index, and immune cell infiltration upon conventional hematoxylin and eosin staining. Lipografts were found to remain viable for over 30 days post transfer and showed long-term volume retentions of approximately 40%. We discovered significantly higher initial levels of hypoxia and proliferation, as well as significantly increased vessel counts, and marked macrophage infiltrates in fat grafted specimens compared to adipocutaneous flaps. Subsequently, orthotopically implanted syngeneic D2.0R dormant breast cancer cells were exposed to either tissue transfer method in our newly established murine model in order to assess their impact on tumor outgrowth kinetics in vivo. Interestingly, all animals with adipocutaneous flaps developed mammary tumors at the same rate as baseline controls. On the contrary, only 20% of all lipografted animals developed tumors at a later point in time. In summary, our new immunocompetent murine model of lipofilling is an important addition to the repertory of experimental approaches to autologous breast reconstruction. Furthermore, our data suggest that fat grafting does not fuel...