INTRODUCTION

Over the last three decades, technology has revolutionized our world and daily lives. It takes 2 minutes to bio-print skin tissue,1 30 seconds to order an Uber, and less than a few seconds to text someone on the other side of the world. Undisputedly, since the advent of open access journals, electronic submission portals, and preprint servers, the process of peer reviewing and article submission has changed greatly.

A publication in a scientific journal can mean the difference between receiving credit or not. Such was the case in the discovery of DNA structure for which Rosalind Franklin received little credit (if any).2 Despite Franklin producing clear and accurate diffraction images of DNA crystals, it was ultimately Crick and Watson’s 900-word article published in the 1953 issue of Nature that led to their fame and Nobel Prize.3

The significant time from initial submission to publishing in scientific journals remains a challenge and disappointing experience at best. In a review of randomized vaccine trials, Manzoli et al reported a median of 26 months from completion to publication.4 In Reyes et al’s meta-analysis of pediatric antidepressant clinical trials, they noted that trials with negative findings had a significantly longer time to publication compared with those with positive results.5

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In the last 14 years, plastic surgery journals have remained slow in publishing articles. (Plast Reconstr Surg Glob Open 2021;9:e3838; doi: 10.1097/GOX.0000000000003838; Published online 4 October 2021.)
with positive findings. Other studies have also confirmed this time lag bias. This suggests that studies with positive results will appear at the forefront of scientific literature several years before those with negative results. While both require similar rigor and resources and are equally important, it is high time that this systemic publication bias is curtailed. Evidently, it is important that journals minimize the publication delays, which would benefit patients, authors, and the values of the standardized measures created by the Institute of Scientific Information’s Journal Citation Report.

The impact factor (IF), cited half-life, and immediacy index are three standardized measures created by the Journal Citation Report to provide insight on the citations received by a specific journal’s articles over time. The journal IF represents the average number of citations that articles from a journal receive over the previous 2 years. However, this may vary greatly for each article because there are various other factors that affect how much a publication attracts attention. The cited half-life represents the number of years required of current citations of all the articles in a journal, to decline to 50% of their initial value. The immediacy index measures how frequently the average articles of a journal are cited in the current year.

To the best of our knowledge, a similar study in 2007 was conducted for plastic surgery journals. Labanaris et al reported that plastic surgical journals demonstrated low overall index values and a greater turnaround time in comparison with journals in other disciplines of surgery and medicine. In our study, we compared the publication speed of the articles in plastic surgery journals compared with journals in other disciplines of surgery and medicine. Our study additionally assessed the changes in publication speed of plastic surgery journals across the last 14 years.

**METHODS**

This methodology has been validated from several similar publications. In total, five tables were created using the Journal Citation Report and open access journal articles. For the first table, the 2019 Journal Citation Report was used to compare overall indexes for surgical journals and various disciplines of medicine (n = 36). The indexes studied were the highest IF, average IF, cited half-life, immediacy index, and the total number of journals in the discipline. For the second table, all surgical disciplines (n = 16) were compared with each other according to the above-mentioned indexes. For the third table, all plastic surgery journals were assessed according to their IFs throughout the years of 2014 to 2019 by the Journal Citation Report.

To assess publication times, we evaluated a total of 12 original articles provided by each of the highest-ranking journals of each surgical discipline and compared this with 12 original articles provided by each of the plastic surgical journals listed in the 2019 Journal Citation Report. Twelve articles were chosen to have an accurate representation across the year and so this study could be consistent with Labanaris et al’s study methodology. All articles were chosen at random between January 1, 2018 and December 31, 2018. If a journal had 12 issues published per year, one article from each issue was selected. When the number of issues published per year varied, 12 articles were chosen evenly across all available issues. Only original research articles were included. The exclusion criteria were supplementary issues, review articles, editorials, and correspondences.

From each of the selected articles, the dates of submission, acceptance, and publication were obtained. The date of submission was defined as the date when the article was submitted to the journal. Date of acceptance refers to the date on which communication of acceptance was made from the publisher to the author. Date of publication denotes the date on which the article was published either online in advance or in print (for journals with no advanced online publication feature). The periods taken from submission to revision, from submission to acceptance, from acceptance to publication, and from submission to publication were calculated for each journal.

**Statistical Analysis**

Statistical analysis was conducted using SAS 9.4 software (SAS, Cary, N.C.). A univariate analysis was performed to check the normality of the data, and to evaluate the quartiles. Pearson correlation was utilized to analyze the association between IF and submission to acceptance, acceptance to publication, and submission to publication, individually, stratified by journal category (surgery versus plastic surgery). Scatter plots were created to demonstrate interrelationship between various variables.

**RESULTS**

According to the 2019 Journal Citation Report, approximately 36 distinct medical disciplines were identified and further assessed. In Table 1, the number of journals for each medical discipline ranged from 13 for the discipline of psychology (psychoanalysis) to 271 for neurosciences (mean = 103.8, median = 79.5). The discipline of surgery had 210 journals. The highest IF for each medical discipline ranged from 1.044 for psychology (psychoanalysis) to 292.278 for oncology (mean = 27.757, median = 15.392). The highest IF for the discipline of surgery was 13.625. The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238). The median IF for each medical discipline ranged from 0.416 for psychology (psychoanalysis) to 3.348 for immunology (mean = 2.250, median = 2.238).
In Table 2, all surgical journals (n = 210) were identified and categorized into 16 surgical disciplines and these were further assessed. The number of journals for each surgical discipline ranged from one for the discipline of surgical radiology to 69 for general surgery (mean = 13, median = 8). There were 18 plastic surgery journals. The highest IF for each medical discipline ranged from 2.068 for maxillofacial surgery to 13.626 for general surgery (mean = 5.041, median = 4.135). The highest IF in plastic surgery was 4.209. The mean IF for each medical discipline ranged from 1.439 for maxillofacial surgery to 3.666 for transplantation surgery (mean = 2.364, median = 2.324). The mean IF in plastic surgery was 1.829. The median IF in plastic surgery was 1.429. The highest IF in each medical discipline ranged from 1.347 for maxillofacial surgery to 3.177 for transplantation surgery (mean = 2.147, median = 2.062). The median IF in

| Discipline                        | Highest Impact Factor | Median Impact Factor | Cited Half-life (y) | Immediacy Index | No. of Journals |
|-----------------------------------|-----------------------|---------------------|--------------------|-----------------|----------------|
| Oncology                          | 292.278               | 3.297               | 6.5                | 1.115           | 244            |
| Medicine, general & internal      | 74.699                | 1.681               | 7.9                | 0.988           | 165            |
| Pharmacology & pharmacy           | 64.797                | 2.678               | 7.5                | 0.866           | 270            |
| Psychiatry                        | 40.595                | 2.500               | 8.1                | 1.033           | 155            |
| Immunology                        | 40.358                | 3.348               | 7.7                | 1.200           | 158            |
| Medicine, research & experimental | 36.130                | 3.119               | 6.3                | 0.760           | 138            |
| Neurosciences                     | 33.654                | 3.047               | 8.7                | 1.032           | 271            |
| Genetics & heredity               | 33.133                | 2.809               | 8.4                | 0.924           | 177            |
| Clinical neurology                | 30.039                | 2.611               | 8.0                | 0.880           | 204            |
| Physiology                        | 25.588                | 2.456               | >10.0              | 1.000           | 81             |
| Respiratory system                | 25.094                | 2.680               | 7.3                | 1.266           | 64             |
| Cardiac & cardiovascular systems  | 23.603                | 2.375               | 7.0                | 4.357           | 138            |
| Peripher al vascular disease      | 23.603                | 2.669               | 9.0                | 1.190           | 65             |
| Psychiatry                        | 20.850                | 2.154               | >10.0              | 0.802           | 77             |
| Urology & nephrology              | 20.711                | 2.089               | 7.8                | 0.929           | 85             |
| Hematology                        | 17.543                | 2.826               | 7.8                | 1.264           | 76             |
| Pathology                         | 16.750                | 2.085               | 8.7                | 0.789           | 78             |
| Virology                          | 15.923                | 2.824               | 7.6                | 0.925           | 37             |
| Ophthalmology                     | 14.860                | 1.977               | 8.8                | 0.623           | 60             |
| Psychology, applied               | 14.353                | 2.128               | >10.0              | 0.784           | 84             |
| Pediatrics                        | 13.946                | 1.765               | 8.1                | 0.609           | 128            |
| Psychology, clinical              | 13.692                | 2.013               | 9.6                | 0.878           | 131            |
| Surgery                           | 13.625                | 1.901               | 8.0                | 0.716           | 210            |
| Radiology, nuclear, medicine & medical imaging | 12.740       | 2.321               | 7.7                | 0.839           | 133            |
| Obstetrics & gynecology           | 12.334                | 2.095               | 7.9                | 0.683           | 85             |
| Psychology, social               | 12.321                | 1.881               | >10.0              | 0.669           | 64             |
| Chemistry, medicinal              | 12.000                | 2.733               | 7.5                | 0.804           | 61             |
| Dermatology                       | 8.287                 | 2.118               | 7.8                | 0.869           | 68             |
| Anesthesiology                    | 7.516                 | 2.506               | 8.7                | 1.164           | 77             |
| Psychology, developmental         | 7.055                 | 1.828               | 9.9                | 0.808           | 61             |
| Neuroimaging                      | 5.902                 | 2.528               | 7.7                | 1.076           | 14             |
| Emergency medicine                | 5.799                 | 1.656               | 7.1                | 0.568           | 31             |
| Anatomy & morphology              | 3.926                 | 1.634               | 9.5                | 0.531           | 21             |
| Medicine, legal                   | 2.652                 | 1.372               | 7.0                | 0.466           | 16             |
| Ornithology                       | 2.628                 | 0.881               | >10.0              | 0.373           | 28             |
| Psychology, psychoanalysis        | 1.044                 | 0.416               | >10.0              | 0.267           | 13             |

### Table 2. Overall Indexes for Journals of Surgical Disciplines

| Surgical Disciplines                  | Highest Impact Factor | Mean Impact Factor | Median Impact Factor | Cited Half-life (years) | Immediacy Index | No. of Journals |
|---------------------------------------|-----------------------|--------------------|---------------------|------------------------|-----------------|----------------|
| Transplantation surgery                | 8.865                 | 3.666              | 3.177               | 10.4                   | 1.077           | 9              |
| Oncology surgery                       | 4.061                 | 2.954              | 2.771               | 7.1                    | 0.650           | 7              |
| Arthroscopy                            | 7.341                 | 2.715              | 1.996               | 9.0                    | 0.850           | 19             |
| Microscopy                             |                       |                    |                     |                        |                 |                |
| Endoscopy                              |                       |                    |                     |                        |                 |                |
| Pathology                              | 4.958                 | 2.714              | 2.769               | 11.6                   | 0.609           | 9              |
| Otorhinolaryngology surgery            | 3.848                 | 2.713              | 2.713               | 11.5                   | 0.815           | 4              |
| Surgical radiology                     | 2.473                 | 2.473              | 2.473               | 4.0                    | 0.448           | 1              |
| Orthopedics surgery                    | 4.578                 | 2.407              | 1.967               | 14.0                   | 0.455           | 12             |
| Vascular surgery                       | 3.405                 | 2.389              | 2.513               | 9.3                    | 0.469           | 4              |
| General surgery                        | 13.625                | 2.599              | 1.912               | 12.4                   | 0.650           | 60             |
| Neurosurgery                           | 8.234                 | 2.152              | 1.731               | 17.0                   | 0.664           | 26             |
| Laser surgery                          | 3.020                 | 2.137              | 2.130               | 10.5                   | 0.599           | 5              |
| Ophthalmology surgery                  | 2.711                 | 2.129              | 2.129               | 9.9                    | 0.376           | 3              |
| Pediatric surgery                      | 2.807                 | 2.024              | 1.811               | 10.7                   | 0.465           | 4              |
| Cardiovascular surgery                 | 4.451                 | 1.835              | 1.490               | 9.9                    | 0.660           | 15             |
| Plastic and hand surgery               | 4.209                 | 1.829              | 1.429               | 13.4                   | 0.462           | 18             |
| Maxillofacial surgery                  | 2.068                 | 1.439              | 1.347               | 13.7                   | 0.317           | 5              |
plastic surgery was 1.429. The cited half-life for each medical discipline ranged from 4.0 years for surgical radiology to 17.9 years for neurosurgery (mean = 11.0 years, median = 10.6 years). The cited half-life for the discipline of plastic surgery was 13.4 years. The immediacy index for each medical discipline ranged from 0.317 for maxillofacial surgery to 1.077 for transplantation surgery (mean = 0.593, median = 0.600). The immediacy index for the discipline of plastic surgery was 0.462.

In Table 3, the IFs for all plastic surgery journals from 2014 to 2019 were identified and further assessed. The variation in mean IF of the plastic surgery journals for the period from 2014 to 2019 increased from 1.216 to 1.829. The variation in median IF across the same time period also showed an increase from 0.956 to 1.429. The number of plastic surgery journals has also increased from 15 journals in 2014 to 18 journals in 2019 (Table 3).

In Table 4, all highest-ranking journals from each surgical discipline listed in the Journal Citation Report for 2018 were identified, and the time interval from submission to acceptance to the publication of an article was assessed. Among them, nine (56.3%) and six (33.3%) did not report the date of article submission and acceptance. The time intervals from article submission to acceptance ranged from 15.5 weeks for Annals of Surgical Oncology to 28.9 weeks for Plastic and Reconstructive Surgery. The number of issues ranged from two issues for Seminars In Plastic Surgery to 12 issues for Plastic and Reconstructive Surgery, Journal of Plastic Reconstructive and Aesthetic Surgery, and Annals of Plastic Surgery.

When analyzing both Tables 4 and 5, there was a statistically significant difference in the IFs of plastic surgery and other surgical journals based on their reporting of submission to acceptance times of the articles ($P<0.05$, Wilcoxon test) (Fig. 2). There was also a positive Spearman correlation of 0.38 between acceptance-to-publication time and IF for plastic surgery journals but no correlation for surgery (Fig. 1). A positive Spearman correlation of 0.736 and 0.496 is noted between IFs and submission-to-publication and acceptance times, respectively, for plastic surgery journals (Figs. 2, 3). Hence, as the IF for plastic surgery journals increases, the number of weeks from submission to acceptance increases as well. Interestingly, surgery journals were observed to publish faster when the IF was higher. This needs to be interpreted with caution because the range of IFs for plastic surgery is much smaller than for surgery. When comparing the time for submission to acceptance to publication, there was a negative correlation of −0.174 for plastic surgery journals; yet, there was a strong positive correlation of 0.652 for surgery journals (Fig. 4).

### Table 3. Change in IFs for Plastic Surgery Journals from 2014 to 2019

| Plastic Surgery Journals                  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  |
|-----------------------------------------|-------|-------|-------|-------|-------|-------|
| Plastic and Reconstructive Surgery      | 2.993 | 3.087 | 3.843 | 3.621 | 3.946 | 4.209 |
| Aesthetic Surgery Journal               | 1.373 | 1.699 | 1.792 | 1.928 | 2.418 | 3.799 |
| JAMA Facial Plastic Surgery             | 1.161 | 1.744 | 2.703 | 2.388 | 3.056 | 3.787 |
| Journal of Plastic Reconstructive and Aesthetic Surgery | 1.421 | 1.743 | 2.048 | 2.158 | 2.228 | 2.390 |
| Journal of Hand Surgery-European Volume | 2.037 | 1.868 | 2.191 | 2.648 | 2.235 | 2.290 |
| Clinics in Plastic Surgery              | 0.906 | 1.065 | 1.658 | 2.016 | 1.215 | 1.959 |
| Aesthetic Plastic Surgery               | 0.956 | 1.065 | 1.320 | 1.484 | 1.399 | 1.798 |
| Facial Plastic Surgery Clinics of North America | 0.722 | 0.614 | 1.568 | 1.133 | 1.157 | 1.543 |
| Journal of Hand Therapy                 | 2.600 | 1.770 | 1.159 | 1.040 | 1.532 | 1.504 |
| Annals of Plastic Surgery               | 1.494 | 1.535 | 1.596 | 1.536 | 1.448 | 1.354 |
| Ophthalmic Plastic and Reconstructive Surgery | 0.881 | 0.991 | 1.242 | 1.283 | 1.154 | 1.331 |
| Seminars in Plastic Surgery             | 0.289 | 0.483 | 0.845 | 0.800 | 0.561 | 1.300 |
| Journal of Plastic Surgery and Hand Surgery | 0.695 | 0.791 | 0.901 | 1.100 | 1.037 | 1.255 |
| Facial Plastic Surgery                  | 0.640 | 0.631 | 0.761 | 0.813 | 1.329 | 1.108 |
| Hand Surgery and Rehabilitation        | —     | —     | —     | 0.308 | 0.571 | 0.961 |
| Handchirurgie Mikrochirurgie Plastische Chirurgie | 0.651 | 0.692 | 0.700 | 0.513 | 0.809 | 0.840 |
| Plastic Surgery                        | —     | 0.822 | 0.292 | 0.606 | 0.667 | 0.754 |
| Annales de Chirurgie Plastique Esthetique | 0.506 | 0.581 | 0.865 | 0.585 | 0.714 | 0.752 |
| Mean                                    | 1.216 | 1.199 | 1.494 | 1.442 | 1.525 | 1.829 |
| Median                                  | 0.956 | 1.065 | 1.320 | 1.208 | 1.272 | 1.429 |
DISCUSSION

In this study, we compared the publication speed of the articles in plastic surgery journals compared with journals in other disciplines of surgery and medicine. In comparison with Labanaris et al’s 2007 bibliometric assessment of plastic surgery journals, our study notes that there have been several positive changes, whilst other issues still remain. Previous studies have conducted bibliometric assessments specific to their specialties. 8–10

Fourteen years later, plastic surgery journals collectively still demonstrate low index values and a greater turnaround time in comparison with journals in other disciplines of surgery and medicine. Despite a steady increase in all surgical disciplines’ journal IFs, plastic surgery still persists as the second-lowest median IF and mean IF (Table 2). Consistent with previous results, plastic surgery continues to have a relatively large number of journals and cited half-life, compared with other surgical disciplines. In contrast, the highest IF journal within the plastic surgery discipline has moved up to near the top relative to other surgical disciplines (Table 2). Despite this, it is important to interpret these results with caution as assessing only the highest IF journal in a discipline does have its biases.

In considering the plastic surgical journal IFs for the period from 2014 to 2019, it is noticeable that 16 of the 18 journals have displayed an increase in IF value. However, only the Aesthetic Surgery Journal, Canadian Plastic Surgery, Hand Surgery and Rehabilitation, and Journal of Plastic Reconstructive and Aesthetic Surgery have consistently increased their IF every year. The IFs of all other plastic surgical journals fluctuated during this period (Table 3).

In regard to publication speed, it is important to note that the overall time has reduced by ~9 weeks for all surgical disciplines, including plastic surgery. However, it is evident that plastic surgery journals still have the greatest article submission to publication time in comparison with other surgical journals. There is a general positive correlation between the plastic surgery IFs and article submission to publication time. This is in good agreement with logical expectations, as a journal’s high IF may indicate the journal’s published papers are of high relevance and

Table 4. Comparison of Highest-ranking Journals from Each Surgical Discipline in January–December 2018

| Highest Ranked Journal | IF | Submitted–Accepted (wk) | Accepted–Published (wk) | Submitted–Published (wk) | No. Issues |
|------------------------|----|------------------------|------------------------|-------------------------|------------|
| JAMA Surgery           | 10.668 | — | 13.7 | — | 12 |
| American Journal of Transplantation | 7.163 | 15.7 | 3.1 | 18.8 | 12 |
| Annals of Thoracic Surgery | 3.919 | — | 9.4 | — | 12 |
| Journal of Vascular Surgery | 3.243 | 15.5 | 21.2 | 36.8 | 12 |
| Journal of Neurology Neurosurgery and Psychiatry | 8.327 | 16.7 | 5.4 | 22.1 | 12 |
| Journal of Refractive Surgery | 3.000 | 19.3 | 9.8 | 29.1 | 12 |
| International Journal of Oral and Maxillofacial Surgery | 1.961 | — | 3.1 | — | 12 |
| JAMA Otolaryngology-Head and Neck Surgery | 3.502 | — | 11.2 | — | 12 |
| Lasers in Surgery and Medicine | 3.202 | — | 3.7 | — | 10 |
| Journal of Bone and Joint Surgery-American Volume | 4.716 | — | — | — | 24 |
| Plastic and Reconstructive Surgery | 3.946 | 28.9 | 29.0 | 57.9 | 12 |
| Seminars in Pediatric Surgery | 2.402 | — | — | — | 10 |
| American Journal of Surgical Pathology | 6.155 | — | — | — | 12 |
| International Journal of Computer Assisted Radiology and Surgery | 2.155 | 19.0 | 1.8 | 20.7 | 12 |
| Annals of Surgical Oncology | 3.681 | — | — | 16.3 | 12 |
| Endoscopy | 6.381 | — | — | — | 12 |

Table 5. Comparison of All Plastic Surgical Journals Listed in 2018 by the Journal Citation Report

| Plastic Surgery Journal | Impact Factor | Submitted–Accepted (wk) | Accepted–Published (wk) | Submitted–Published (wk) | No. Issues |
|------------------------|--------------|------------------------|------------------------|-------------------------|------------|
| Plastic and Reconstructive Surgery | 3.946 | 23.3 | 25.8 | 49.0 | 12 |
| Aesthetic Surgery Journal | 3.480 | — | 6.5 | — | 11 |
| JAMA Facial Plastic Surgery | 3.056 | — | 16.8 | — | 6 |
| Journal of Plastic Reconstructive and Aesthetic Surgery | 2.228 | 28.4 | 2.1 | 30.4 | 12 |
| Journal of Hand Surgery-European Volume | 2.225 | 24.7 | 4.6 | 29.3 | 10 |
| Clinics in Plastic Surgery | 1.215 | — | — | — | 4 |
| Aesthetic Plastic Surgery | 1.399 | 18.4 | 3.5 | 22.0 | 6 |
| Facial Plastic Surgery Clinics of North America | 1.157 | — | — | — | 4 |
| Journal of Hand Therapy | 1.532 | 26.9 | 8.9 | 35.8 | 4 |
| Annals of Plastic Surgery | 1.448 | 11.1 | 26.1 | 37.3 | 12 |
| Ophthalmic Plastic and Reconstructive Surgery | 1.134 | — | — | — | 6 |
| Seminars in Plastic Surgery | 0.561 | — | — | — | 2 |
| Journal of Plastic Surgery and Hand Surgery | 1.037 | 18.7 | 7.2 | 25.9 | 2 |
| Facial Plastic Surgery | 1.329 | — | — | — | 6 |
| Hand Surgery and Rehabilitation | 0.571 | 23.3 | 6.7 | 30.0 | 6 |
| Handchirurgie Mikrochirurgie Plastische Chirurgie | 0.809 | 0.6 | 10.0 | 10.6 | 6 |
| Plastic Surgery | 0.667 | — | — | 0 | 4 |
| Annales de Chirurgie Plastique Esthetique | 0.714 | 6.4 | 5.6 | 12.1 | 5 |
hence, that the journal needs to thoroughly peer-review the article before publication. Unfortunately, Labanaris et al.’s study did not include statistical analysis or assess for correlations between variables and so, it was not possible to assess for a change in correlation between plastic surgery journal IFs and publication speed across 14 years.

Publication speed consists of two parts. Firstly, the time between submission to acceptance, which includes time spent

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**Fig. 1.** Scatterplots showing correlation between acceptance to publication and IFs for plastic surgery journals and surgery journals. There is a positive correlation for plastic surgery journals ($r = 0.38, P = 0.2194$) and no correlation for surgery journals ($r = 0.02, P = 0.9412$). PS, Plastic surgery; S, Surgery.

**Fig. 2.** Scatterplots showing correlation between submission to publication and IFs for plastic surgery journals and surgery journals. There is a positive correlation for plastic surgery journals ($r = 0.736, P = 0.009$) and a negative correlation for surgery journals ($r = -0.245, P = 0.5957$). PS, Plastic surgery; S, Surgery.
on peer review and sending revisions back to the authors, and secondly, the time spent between acceptance to publication, which includes further edits, typesetting, and printing.\(^9\) Hence, the revision period by authors can be variable and may impact the journal’s overall reported publication speed. Despite being statistically insignificant, this may explain why the correlation between journal IF and submission to acceptance time is stronger than acceptance to publication.

Fig. 3. Scatterplots showing correlation between submission to acceptance and IFs for plastic surgery journals and surgery journals. There is a positive correlation for plastic surgery journals \((r = 0.496, P = 0.1447)\) and a negative correlation for surgery journals \((r = -0.306, P = 0.5543)\). PS, Plastic surgery; S, Surgery.

Fig. 4. Scatterplots showing correlation between acceptance to publication time and submission to acceptance for plastic surgery journals and surgery journals. There is a negative correlation for plastic surgery journals \((r = -0.1742, P = 0.6302)\) and a positive correlation for surgery journals \((r = 0.652, P = 0.1603)\). PS, Plastic surgery; S, Surgery.
LIMITATIONS

Our study has several limitations. Firstly, comparing journal IFs across different disciplines is an intrinsic weakness of the Journal Citations Report. Also, every journal did not report submission, acceptance, and/or publication dates, which resulted in missing data and requires correlation data to be interpreted with caution. Also, while the plastic surgery journals had low IFs, the surgery journals had spread out distribution, which might bias the results. Additionally, given that each article is unique with its content, authors, and its peer reviewing authors, some articles will require a lengthy amount of time to provide valuable feedback. On the other hand, upon receiving feedback, some articles can be revised quickly, whereas others will require more time. Our study design assumes uniformity among articles across different medical disciplines.

CONCLUSIONS

There is a significant submission to publication time lag in plastic surgery journals when compared with other surgical journals. There was a positive correlation between submission to publication and IFs for plastic surgery journals but a negative correlation for surgery journals (Spearman correlation). For the last 14 years, plastic surgery journals have remained relatively slow in publishing journals in comparison with other surgical disciplines. Plastic surgery journals should speed up the publication process, and this would benefit patients, authors, and the values of the standardized measures created by the Institute of Scientific Information’s Journal Citation Report.

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