

Analysis of Female Representation in the One-Hundred Most Cited Articles in Facial Plastic and Reconstructive Surgery

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Objective

- To characterize female representation among the top one hundred most cited articles in facial plastic and reconstructive surgery
- Understand impact of gender on academic advancement and achievement in facial plastic and reconstructive surgery

Methods

- Cross sectional analysis conducted using Elsevier Scopus database for top 100 most cited articles in facial plastic surgery in journals with impact factor greater than one – nine journals selected
- The database was utilized to collect author names, institutional affiliations, country of origin, year of publication, and total number of citations.
- Gender of author was estimated using the US Social Security Administration Baby Names Database along with institutional websites.
- Pearson chi square analysis with < 0.1 significance threshold was used to compare gender representation of authors by year, citation quartile, and country of origin.
- Two tailed t testing was performed to compare the average number of citations in articles published by male vs female authors.

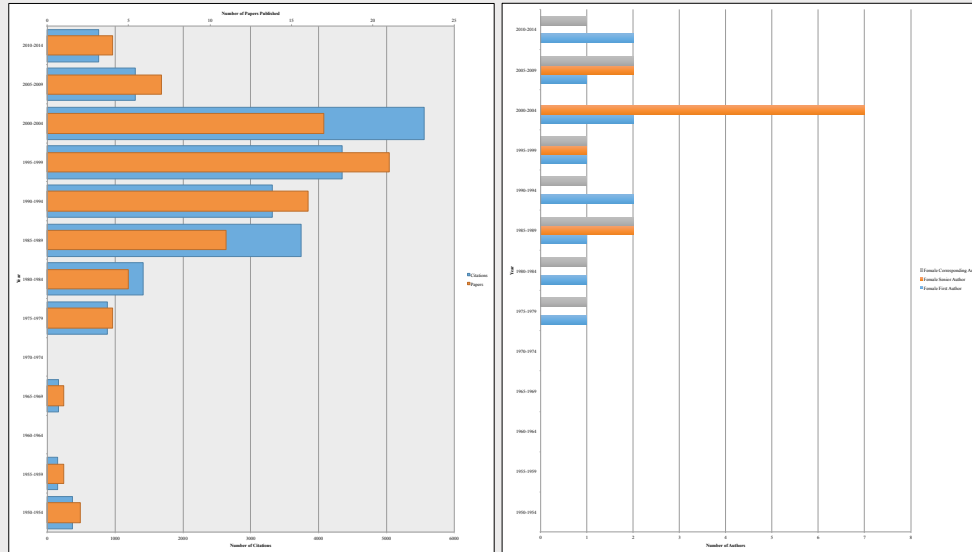


Figure 1 (Left) illustrates gross number of publications and citations of the top 100 most cited articles in facial plastic and reconstructive surgery by year. Figure 2 (Right) depicts number of female first, senior, and corresponding authors of the top 100 most cited articles in facial plastic surgery by year.

Results

- Females accounted for a significant minority of first authors (11%), senior authors (13%), and corresponding authors (10%).
- Of the 18 women represented among authorship, 10 were physicians with training in plastic surgery (6), otolaryngology (2), dermatology, (1) and ophthalmology (1).
- No statistically significant difference in the relative number of first, senior, and corresponding female authors was observed between decades of publication, citation quartile, and article nationality.
- Though male first authors had higher total citations, there was no significant difference between the average numbers of citations for female first authors when compared to their male counterparts.

Discussion

- This study is the first of its kind to analyze representation of female representation among the top 100 most cited articles in facial plastic and reconstructive surgery.
- Overall, men greatly outnumbered women in authorship by a ratio of approximately 9:1.
- Despite evaluation across a 70-year timeframe during which the number of female facial plastic surgeons has increased, our study revealed no difference in the relative representation of female authorship over time, suggesting further efforts are needed to advance women in academic contributions.
- No significant difference in female authorship by representation across nationality, suggesting that this issue challenges academic medical communities across the globe.

Summary

- Overall, women, specifically female physicians, continue to be underrepresented in both number and academic publications in the field of facial plastic and reconstructive surgery.
- Although there are increasing numbers of female facial plastic surgery trainees, a gender gap persists within the scientific literature; additional efforts are needed to include and foster women in academic contributions, mentorship, and advancements in facial plastic and reconstructive surgery.