

# **Trends in Females in Microsurgery and Impact on Future Career Planning**

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## **BACKGROUND**

While the number of female plastic surgeons has continued to increase over time, plastic surgery has historically been a male-dominated profession. Currently, females represent 38 percent of plastic surgery residents and 15 percent of practicing plastic surgeons.<sup>1</sup> Microsurgery, as a subspecialty, has been long perceived as an even more male centric career path, although no studies have looked at the representation of women in the subspecialty fields within plastic surgery. The objective of this study was to determine the representation of females in the subspecialty field of microsurgery over time and the impact of microsurgical fellowship training.

## **METHODS**

A review of all microsurgery fellowship programs participating in the microsurgery fellowship match from 2010 to 2019 were analyzed. Fellows were identified through fellowship website pages or direct contact with fellowship program coordinators and directors. The current type of practice and performance of microsurgery were identified for each fellow through a web search and direct contact with fellowship program coordinators and directors.

## **RESULTS**

A total of 21 programs and 317 fellows over a 10-year period were analyzed. One international program and six programs with less than 3 years of fellows were excluded. One program had incomplete data but was included in the analysis. Over this 10-year period, there was a total of 100 (31.5%) female microsurgery fellows and 217 (68.5%) male microsurgery fellows. There was a small, statistically insignificant increase in the yearly percentage of female microsurgery fellows over this 10-year period with an average yearly increase of 2.7% ( $p=0.60$ ; 95% CI: -6.9 – 13.2%). In assessing the current practice of all microsurgery fellowship graduates, there were significantly fewer females who continued to practice microsurgery compared to males (75 [75.0%] vs. 186 [85.7%],  $p=0.02$ ). There was no significant difference in the current practice types (academic, private, and non-academic hospital) between females and males ( $p=0.29$ ).

## CONCLUSION

Women are underrepresented in the field of microsurgery to a similar extent as they are underrepresented in overall plastic surgery. While there is a small insignificant increase in the number of female microsurgery fellows every year, a significantly smaller proportion of females continue to practice microsurgery compared to males. Further research is required to identify the causative factors of this discrepancy.

1. Parmeshwar N, Stuart ER, Reid CM, Oviedo P, Gosman AA. Diversity in plastic surgery: trends in minority representation among applicants and residents. *Plast Reconstr Surg.* 2019 Mar; 143(3): 940-949.

