

Medical School and Program Factors Impacting Females Choosing Otolaryngology Residency

Peter Steinwald, James Onyeukwu, Kathryn Noonan, Christian Soneru

Department of Otolaryngology, Tufts Medical Center, Boston Massachusetts

INTRODUCTION

Gender differences among leadership positions in academic otolaryngology have become an important topic of discussion over the past several years. Mentorship during the early career phases of medical school and residency may play an important role. This database study aims to identify medical school and residency factors that impact females entering the specialty and matching into a residency program.

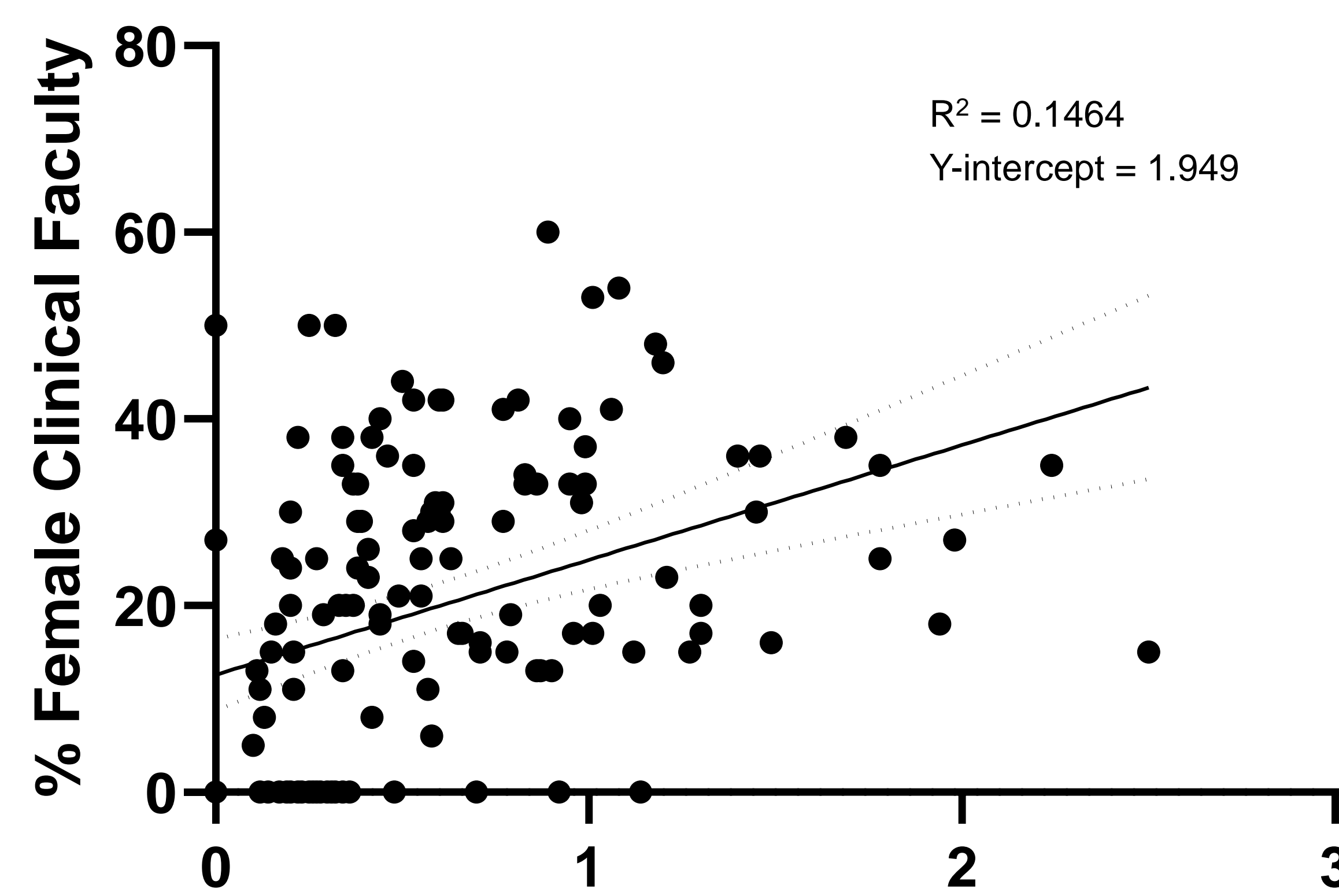
METHODS

Publicly available data was used to construct a database of all current otolaryngology residents representing the match cycles of 2017-2021. Data was collected for each resident. Univariate and multivariate regression was used to examine factors that may influence females matriculating into an otolaryngology residency program.

- Gender
- Post-grad year
- Med school
- U.S. News and World Report Top 10 Ranking
- Doximity top 10
- Otolaryngology Interest Group
- ENT department funding
- ENT faculty gender composition

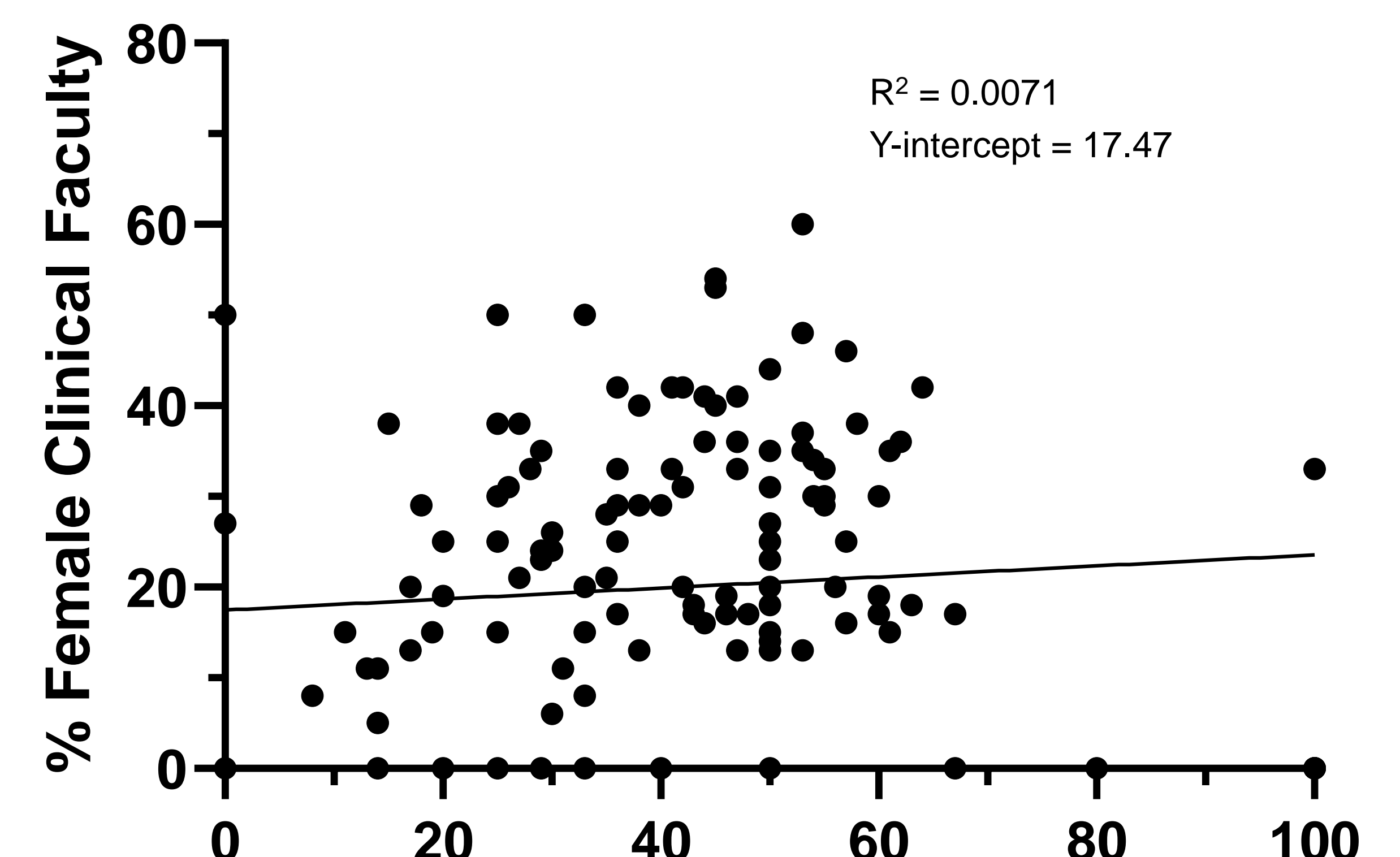
Variable	Univariable		Multivariable		
	B (95% CI)	p Value	B (95% CI)	beta	p Value
% of Female Clinical Faculty at Medical School	0.0118 (0.0069 to 0.0166)	<0.0001	0.0008 (-0.0045 to 0.0061)	0.302	0.76
Home Academic ENT Program	0.4617 (0.2950 to 0.6284)	<0.0001	0.1962 (0.0329 to 0.3595)	2.355	0.02
ENT Student Interest Group	0.2247 (0.0398 to 0.4095)	<0.0001	-0.0395 (-0.1649 to 0.0859)	-0.618	0.54
U.S. News ENT Top 10 Ranking	11.096 (0.8566 to 21.335)	0.034	0.5639 (-2.4133 to 3.5411)	0.371	0.71
Doximity ENT Top 10 Ranking	8.9150 (-0.2559 to 18.086)	0.056	0.2479 (-2.7019 to 3.1977)	0.165	0.87
ENT Department Funding	1.53E-06 (5.25E-07 to 2.53E-06)	<0.0001	4.70E-07 (1.61E-07 to 7.78E-07)	2.98	<0.0001
Total ENT Female Faculty at Residency Program	0.4729 (-0.0029 to 0.9486)	0.051	0.0534 (-0.0897 to 0.1964)	0.73	0.46

Table 1. Univariable analysis compared to multivariable analysis. Percent of female clinical ENT faculty at a medical school, U.S. News Top 10, and ENT student interest group were all significantly associated with females matching into ENT residency. On multivariable analysis, these were no longer significant. ENT department funding and home academic program were significant on both univariable and multivariable analysis.



% Med School Grads that are Current Female Residents

Figure 1. Percent of clinical ENT faculty at a medical school vs percent of medical school graduates that are current female ENT residents. Univariable analysis shows significant association ($p < 0.0001$) between higher percentage of clinical female ENT faculty and the percentage of female medical students that match into ENT.



% Female Residents

Figure 2. Percent of clinical ENT faculty at an academic ENT program vs percent of female residents at that program. Univariable analysis did not show a significant association ($p 0.051$) between higher percentage of clinical female ENT faculty and the percentage of current female residents.

RESULTS

The 1565 residents identified consisted of 645 females (41%) and graduated from 140 different US medical schools, of which have 108 (77%) were found to have otolaryngology faculty. 101 US otolaryngology residency programs were also included. There was a significant association ($p < 0.05$) between the percentage of female medical school graduates entering otolaryngology and the number of clinical female faculty on univariate analysis. On multivariate analysis, no significance was identified. When examining whether increased number of clinical female faculty led to higher numbers of female residents, no significance was identified on univariate or multivariate analysis.

CONCLUSIONS

The number of female clinical otolaryngology mentors available for female medical students may impact the decision to enter otolaryngology. However, the number of clinical female faculty may play less of a role in attracting residents to a certain program. When considering other factors that may influence a medical student decision, such as program prestige, home academic program, and funding, the gender of faculty mentors may be less important.