THE EFFECT OF GENDER DIVERSITY IN US NEUROSURGERY TRAINING PROGRAMS ON RESIDENT ATTRITION RATES

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Disclosures

- The authors do not have any disclosures.
Introduction

- Surgical resident burnout and attrition rates remain prudent topics both within the medical field and community at large. There is a paucity of data detailing attrition rates for many traditionally highly competitive surgical fields, as well as differences in male versus female residency attrition within these fields.

- General surgery reports an attrition rate of 18% based upon a meta-analysis in 2015\(^4\). Neurosurgery joins these ranks, with a reported resident attrition rate of 10.98% from 2005 to 2010\(^3\). Currently, women comprise just 17.1% of neurosurgical residents and 7.8% of all practicing neurosurgeons within the US\(^1,2\). Part of this growing disparity is likely due to an increased attrition rate among female neurosurgeons when compared to their male counterparts.

- The purpose of this study is to examine gender differences in neurosurgical residency attrition rate and to analyze the effect of residency program gender composition on resident attrition.

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Methods

- Data publicly available through institutional and supplemental websites for neurosurgical faculty and residents with an MD degree at 109 ACGME-accredited programs was analyzed for the 2017-2018 academic year.

- Resident and faculty gender composition were analyzed to assess the impact on resident attrition rates based on previously collected data.
Results

Attrition rate of neurosurgical residents:
- Females 11.58%
- Males 8.53%

Figure 1. Attrition Rates of Male and Female Neurosurgical Residents.
Results

The number of female faculty per program does not affect attrition rate

• Programs with greater female faculty had a greater number of female residents ($p<0.001$) and percentage of female residents ($p<0.001$).
Results

The presence of a female chief/program director did not affect resident attrition rate or total number or percentage of female residents in the program.
Discussion

- Rates of attrition among female neurosurgery residents exceeds that of their male counterparts, however, this appears to be unrelated to the gender profile of the faculty or residents of the neurosurgery residency program.

- This finding calls into question the significance of same-gender mentoring and suggests that resident attrition is likely the culmination of a multitude of factors of which the gender profile of the residency program is less important than previously hypothesized.

- Further studies are required to further elucidate the precipitating factors for the gender imbalance in resident attrition within neurosurgery.
Summary Points

- Female neurosurgery residents demonstrate significantly greater attrition rates in comparison to their male counterparts.

- The limited presence of female mentorship within neurosurgery has been hypothesized as a significant factor in the challenges of female resident recruitment and retention, this study did not demonstrate any relationship between female resident attrition and the number or percentage of female residents or faculty within a residency program nor the gender of the program director or department chair/chief. Further studies are required to further elucidate the precipitating factors for the gender imbalance in resident attrition within neurosurgery.