Reader Response 1a: Challenges to Successful Research Careers in Neurology: How Gender Differences May Play a Role

Ayushi Aggarwal (Baltimore), Divya Singhal (Oklahoma City), Michelle Guo (Philadelphia), and Julie K. Silver (Boston)

We read the interesting report by Minen et al. on sex disparities in the neurology research pipeline. The authors highlighted unique factors contributing to high rates of attrition among women faculty—besides family obligations—and discussed the negative implications of their early departure on the educational mission of academic medical centers. In addition to destabilizing the foundation of academic integrity, the sex gap in senior leadership roles in neurology threatens future opportunities for advancement of women. The disproportionately low numbers of women professors and chairs in neurology departments, of presidents of professional societies, of senior editors of specialty journals, and of recipients of AAN recognition awards are several examples of sex-related gaps.

Minen et al. suggested that NIH has attempted to promote career development for women through the Responsible Conduct of Research model, but the environment in research has not been entirely conducive to the 3 pillars. Because gaps have not closed on their own, intentional and strategic efforts at multiple levels are pivotal to meet the career goals of many talented and qualified women in neurology.

Reader Response 1b: Challenges to Successful Research Careers in Neurology: How Gender Differences May Play a Role

Heidi Moawad (Brecksville, OH)

The recent article by Mia Minen et al.\(^1\) presents eye-opening data about gender disparities in neurology research careers and outlines proposed solutions. Strategies for narrowing gender gaps can be flawed. Programs designed exclusively for women researchers can be seen as adversely affecting qualified men who meet specified criteria. However, blinding applicant gender ignores crucial foundational issues, such as discrepancies in early career mentorship. And when should efforts to narrow the gender gap happen? During training? In a neurologist’s early career? Is mid-career too late? Among their recommendations, the authors assert that “the NIH could further support women in academic medicine and women’s health research as a field by allowing the Office of Research on Women’s Health to become a funding institute.” Enhancing opportunities for funding can result in more research, which builds further door-opening track records. Beyond funding, policies for coordination and cooperation between research teams, transparency, simpler regulations, and practical ways of providing flexibility for research can help men and women neurology researchers. Creatively expanding resources promotes an environment of abundance, rather than scarcity. Ultimately, broadening research opportunities for women neurologists fosters the true goal of neurology, which is better patient outcomes.


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Author Response 1b: Challenges to Successful Research Careers in Neurology: How Gender Differences May Play a Role

Mia T. Minen (New York City)

On behalf of all of the authors, we thank Dr. Moawad for and agree with the comments on our article.\(^1\) There should be less tape, less competition, and more collaboration. We would advocate for strategies to address gender disparities to be deployed at all phases of career development because this is a cross-cutting issue that affects women in neurology at the earliest and latest stages of their careers. Policies and programs at local and federal institutions that target trainees in neurology research must go hand in hand with approaches that foster the availability and commitment of mid- and late-career scientists who can provide mentorship, training, and concrete resources necessary for success.


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Franco et al. investigated the utility of standardized methods for assessing the adverse effects (AEs) of antiepileptic drugs (AEDs). That is an important matter because it has been shown that quality of life in epilepsy is strongly correlated with AE burden from AEDs. The authors were inspired in a previous study from Gilliam et al. showing the effectiveness of systematic screening of AEs of AEDs using a self-administered standardized instrument—the Adverse Events Profile (AEP)—versus conventional clinical management. In contrast to the pioneering study of Gilliam et al., Franco and colleagues did not find a significant difference in improvement in AEP scores between patients treated by physicians who were aware of the score before the visit and those treated by physicians who were unaware of it. It is worth mentioning that—although modest—they identify an improvement in AEP scores and quality of life in both groups over time, despite a small increase in AED load by the end of the study. This finding may be explained by a rise in awareness on reporting and screening for AEs by patients and physicians, respectively, driven by their participation in a study on AEs of AEDs. In conclusion, screening for adverse events of AEDs—independently of the screening tool used—is desired. However, that is insufficient to drive a significant improvement in AE burden and quality of life. Other measures are needed to address this critical problem in patients with medication-resistant epilepsy.


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Author disclosures are available upon request (journal@neurology.org).
We thank Dr. Bruzzone for her interest in our article.1 We agree that participation in the study per se could have impacted outcomes. In particular, as pointed out in our Discussion, patients in the control group were also administered the questionnaire, and therefore, they might have been sensitized to report adverse effects that otherwise could have been neglected. We also agree that screening for adverse effects should be part of the routine management of people with epilepsy. Ideally, this should be supplemented by other measures aimed at raising awareness about the impact of adverse effects on quality of life, and about the strategies that can be applied to optimize drug treatment according to individual needs.
