

Disputes & Debates: Editors' Choice

Steven Galetta, MD, FAAN, Section Editor

Editors' Note: Challenges to Successful Research Careers in Neurology: How Gender Differences May Play a Role

In "Challenges to Successful Research Careers in Neurology: How Gender Differences May Play a Role," Minen et al. proposed ways to increase the involvement of women neurologists in research. Aggarwal et al. provided additional examples of gender gaps in neurology and emphasized the need to take strategic steps to reduce barriers for women in academic neurology to excel. This will require both institutional and structural changes. Moawad noted that (1) the approach to narrowing the gender gap must be thoughtful to ensure it does not have an adverse impact on men and (2) incorporation of additional women neurologists in research requires improvements in funding, resource allocation, coordination, transparency, and flexibility. In response, Minen reinforced the need for collaboration, mentorship, training, and dedicated resources for women from early-to-late career.

Ariane Lewis, MD, and Steven Galetta, MD
Neurology® 2021;96:636. doi:10.1212/WNL.0000000000011664

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)
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We read the interesting report by Minen et al.¹ 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.^{2,3} As Minen et al. suggest, 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.⁴ The time is now to commit much needed additional resources to overcome structural and institutional barriers for women physicians and scientists in academic neurology.

1. Minen MT, Law EF, Harriott A, et al. Challenges to successful research careers in neurology: how gender differences may play a role. *Neurology* 2020;95:349–359.
2. Silver JK. Understanding and addressing gender equity for women in neurology. *Neurology* 2019;93:538–549.
3. Silver JK, Bank AM, Slocum CS, et al. Women physicians underrepresented in American Academy of Neurology recognition awards. *Neurology* 2018;91:e603–e614.
4. Bates MT, Gordon L, Travis E, et al. Striving for gender equity in academic medicine careers: a call to action. *Acad Med* 2016;91:1050–1052.

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

Heidi Moawad (Brecksville, OH)

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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.

1. Minen MT, Law EF, Harriott A, et al. Challenges to successful research careers in neurology: how gender differences may play a role. *Neurology* 2020;95:349–359.

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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)

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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.

1. Minen MT, Law EF, Harriott A, et al. Challenges to successful research careers in neurology: how gender differences may play a role. *Neurology* 2020;95:349–359.

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Editors' Note: Does Screening for Adverse Effects Improve Health Outcomes in Epilepsy? A Randomized Trial

In “Does Screening for Adverse Effects Improve Health Outcomes in Epilepsy? A Randomized Trial,” Franco et al. compared the Adverse Event Profile (AEP) score after 18 months between patients with uncontrolled seizures and a high initial AEP score whose physicians were notified about the AEP score and those whose physicians were not provided the score. The AEP score decreased during the study period for both groups, but there was no significant difference between adverse effects between groups. Bruzzone commented that the AEP score improvement in both groups may be related to heightened awareness of adverse events by both physicians and patients because of participation in this study. She further noted that these results demonstrate the importance for physicians and patients to be cognizant of the potential for adverse events and identify methods to address them given that these events affect quality of life. Franco and Perucca agreed that study participation could have affected the results and that screening for adverse events should be routine, as should patient and physician education about adverse events, the ways in which they affect quality of life and methods to optimize treatment regimens.

Ariane Lewis, MD, and Steven Galetta, MD
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Reader Response: Does Screening for Adverse Effects Improve Health Outcomes in Epilepsy? A Randomized Trial

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Franco et al.¹ 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.² The authors were inspired in a previous study from Gilliam et al.³ 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.

1. Franco V, Canevini MP, De Sarro G, et al. Does screening for adverse effects improve health outcomes in epilepsy? a randomized trial. *Neurology* 2020;95:e239–e246.
2. Luoni C, Bisulli F, Canevini MP, et al. Determinants of health-related quality of life in pharmacoresistant epilepsy: results from a large multicenter study of consecutively enrolled patients using validated quantitative assessments. *Epilepsia* 2011;52:2181–2191.
3. Gilliam FG, Fessler AJ, Baker G, et al. Systematic screening allows reduction of adverse antiepileptic drug effects: a randomized trial. *Neurology* 2004;62:23–27.

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Author Response: Does Screening for Adverse Effects Improve Health Outcomes in Epilepsy? A Randomized Trial

Valentina Franco (Pavia, Italy) and Emilio Perucca (Pavia, Italy)
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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.

1. Franco V, Canevini MP, De Sarro G, et al. Does screening for adverse effects improve health outcomes in epilepsy? a randomized trial. *Neurology* 2020;95:e239–e246.

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CORRECTIONS

Acute Symptomatic Seizures in Cerebral Venous Thrombosis

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In the article “Acute Symptomatic Seizures in Cerebral Venous Thrombosis” by Lindgren et al.,¹ the author Valentina Arnao was incorrectly identified as Valencia Arnao. The editorial staff regrets the error.

Reference

1. Lindgren E, Silvis SM, Hiltunen S, et al. Acute symptomatic seizures in cerebral venous thrombosis. *Neurology* 2020;95:e1706–e1715.

Cultural Disparities in Deep Brain Stimulation (DBS) Decision Making in Patients With Parkinson Disease (PD) (1713)

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In the Supplement Abstract “Cultural Disparities in Deep Brain Stimulation (DBS) Decision Making in Patients with Parkinson Disease (PD) (1713)” by Shirane et al.,¹ author McKenna Nisson’s title should be listed as “Ms.” in the disclosure section.

Reference

1. Shirane R, Nisson M, Moran E, Shanker V, Palmese C. Cultural disparities in deep brain stimulation (DBS) decision making in patients with Parkinson Disease (PD) (1713). *Neurology* 2020;94(suppl 1):S1713.

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