JAMA Network Open

Invited Commentary | Health Policy

Redesigning the Future of Medicine

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In 2019, most medical students in the US were women for the first time, a feat representing years of effort to improve gender representation in the field. The low reservoir of candidates has long been used as an explanation for the underrepresentation of women and other marginalized groups in academic medicine. However, the pervasive gender disparity that worsens at every rung up the academic ladder cannot be explained by a paucity of candidates alone. This study by Chen et al[1] adds to the evolving literature that the presence of discordant attrition rates of women academic physicians compared with men is a substantial driver of the gender disparity in academic medicine.

Using demographic and practice data from the Centers for Medicare & Medicaid Services, Chen et al[1] compared 294 963 physicians who billed Medicare from US teaching hospitals from March 2014 to December 2019. Attrition from academic medicine was the primary outcome and was defined as not billing from a teaching hospital for more than 1 year. Chen et al[1] found that the absolute attrition rate of women from academic medicine was higher compared with that of men (38.3% vs 32.4%; $P < .001$). This finding remained true in all subset analyses, regardless of stratification by years of practice, specialty, medical school ranking, and geographic area. Overall, women physicians were 25% more likely to leave academia than men.[1]

Certainly there are some limitations of this study[1] that we must consider. The definition of an academic hospital that Chen et al[1] used encompassed both community and university hospitals, which are sometimes challenging to compare. Additionally, the attrition definition used in this study does not account for physicians who may have stopped billing for 1 year or more due to disability or sick leave. Moreover, for early career physicians, the first 5 years of practice represent an important period when there is often significant attrition in academics, and Chen et al[1] were unable to evaluate this period separately. Furthermore, this study was only able to examine gender as a binary variable, and other gender expressions were not represented in the analysis, although clearly such groups would be particularly vulnerable to similar issues that women face.

The significance of the study by Chen et al,[1] with its large sample of academic physicians, is that it provides evidence for the pervasive loss of women physicians from academia on a nationwide scale. Importantly, the finding that higher attrition rates among women physicians remained true independent of several career-influencing variables is suggestive of a persistent culture of gender inequity that underlies this disparity. Chen et al[1] propose several examples supported in the literature to highlight gender inequities in the clinical academic environment, including increased rates of gender-based discrimination and harassment and decreased career-building opportunities. The outcome of these unique barriers can impose a feeling of professional isolation, whereby women physicians are more likely to feel marginalized due to an unsafe environment and a lack of belonging, diverting their energies from meaningful career-building activities.[2] Similarly, the gender-based disparities in additional time spent with both patient care (eg, patients tend to speak longer to women physicians and interrupt them more) and with administrative or institutional tasks not directly related to career advancement, in addition to persistent salary inequities within all specialties in medicine, are additional barriers that contribute to burnout compared with men colleagues.[2-4]

A diverse workforce has diverse needs. The findings from the study by Chen et al[1] demonstrate that we continue to fall short of meeting the needs of the women physician workforce on a national scale. The so-called *pipeline* is leaking, although it begs the question of whether the existence of a *pipeline* concept is part of the problem. Recent work by the American Medical Association's Council on Medical Education[5] has discouraged use of the term *pipeline*, which assumes that all candidates

have the same priorities, ideals, and experiences in career development, may contribute to inequities in recruitment and retention of a diverse workforce. The medical field remains a system that was built by and for men. Tackling the underlying gender inequity will require a larger discussion that prioritizes and recognizes the added value of diversity in our physician community.

The value of a gender-diverse physician workforce cannot be understated. Data on the practice patterns and quality outcomes of women physicians show that women physicians are more likely to adhere to clinical guidelines, address psychosocial aspects of care, provide more preventive care, and have lower mortality and readmission rates compared with physicians who are men.[6] Moreover, the representation of women physicians in academia is crucial for mentorship, sponsorship, and role modeling for the next generation of physicians. The opportunity cost of failing to retain women academic physicians is considerable.

The first step to a solution is to recognize that the presence of persistent workforce gender disparities is a symptom of a systemic cultural problem whereby the current organizational structure for academic advancement is inequitable and inflexible to the distinct experiences of women. Changing this requires an intentional and explicit root-cause analysis and reimagining of the values and measures of success in academia. This may entail broadening the definition of academic success to include experiences and characteristics that have been traditionally undervalued in current paradigms for academic advancement, such as teaching and volunteer commitments to communities and institutions.[7] These are activities that are time-consuming and are more often undertaken by women physicians, but participation exemplifies the many characteristics we should value in academic excellence.[7] Furthermore, leadership should intentionally review institutional policies and practices to assess for disparities and inequities to better allocate support, whether that be for salaries, leadership appointments, endowed chairs, or clinically to address uneven distributions of workload, in addition to routine assessment for gender-based harassment and discriminatory practices regularly experienced by women physicians. If the so-called pipeline will not stop leaking, it is time to tear it out.

ARTICLE INFORMATION

Published: July 17, 2023. doi:10.1001/jamanetworkopen.2023.23831

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Conflict of Interest Disclosures: Dr Gulati reported receiving personal fees from Esperion, Novartis, and Seiman outside the submitted work. No other disclosures were reported.

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