

EDITORIAL AND COMMENT

Gender Pay Gaps in Medicine: Moving from Explanations to Action

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Almost one half of medical school students are now women, and women make up over one third of the total physician workforce. Yet gender inequities in physician compensation persist, with reported gender-based pay gaps of 16 to 37%.¹ Many potential explanations for this pay gap have been suggested, including prioritization of work-life balance, rates of working part-time, specialty choice, years of experience, fewer women in leadership roles and in senior positions, and lack of mentorship and sponsorship for women to promote career advancement. Prior studies have sought to control for many of these and found persistent gender disparities, but have thus far failed to account for the exact quantity and composition of hours worked (e.g., performing procedures versus teaching).

The study by Apaydin et al.² in this issue of the *Journal of General Internal Medicine* sought to address this gap in the literature by using survey data from 30 diverse physician practices across six states to assess how much of the gender pay disparity could be explained by specialty choice, time worked and composition of those work hours, fraction of procedural time, type of compensation, number of years in practice, and demographics. The authors report a raw, absolute difference of close to \$100k in yearly salary between men and women. Approximately \$40k of this difference was attributable to practice characteristics, \$13k was attributable to specialty choice (more women were in primary care specialties and more men performed procedures), \$10k was attributable to number of hours worked, and \$2k was attributable to composition of hours worked. In their full model, 70% of the gender-based pay disparity was explained by all included variables, including the quantity and composition of hours worked, leaving 30% of the disparity still unexplained.

While this study successfully identifies some additional, modest contributors to and mediators of the gender-based disparity in compensation that may act as targets for interventions, future efforts should move beyond explaining the residual 30% income gap. Rather, the field of medicine should begin testing approaches to mitigate the observed gender pay disparity in both identified and unidentified causes of the disparity.

Given that practice characteristics and specialty type explained a large portion of the overall gender pay gap, attention

should be paid to the cultural influences in medical school that may deter women from pursuing procedural specialties.³ Indeed, in this sample, only 4% of women were in medical or surgical specialties, compared to 12 and 19% of men, respectively. Addressing the underlying influences that dissuade women from pursuing procedural specialties during medical school may contribute to closing the gender pay gap.

In addition to supporting equal opportunities for men and women pursuing medical and surgical specialties, the disparity in pay between procedural and cognitive specialties and differences in reimbursement models should also be examined and addressed. The disparity in pay between procedural and cognitive specialties is magnified among women—not only do more women choose generalist careers that are paid less than procedural specialties, but female generalists are paid less than male generalists. Further, practice characteristics explained the largest amount of the gender pay gap in this study, with more men in single subspecialty, or physician-owned or partner-owned practices, with non-fixed salaries, it is likely that more men are practicing in volume-based, fee-for-service practices that gain large profits from longer hours spent seeing patients and/or from performing more procedures. With increasing national focus and shift towards alternative payment models that reward value over volume of healthcare, it is possible that these disparities in pay by specialty and practice type may decrease over time. Close attention must be paid with the expected transition in payment models to ensure other influencers do not perpetuate the gender pay gap.

Other studies have reported that gender disparities in pay emerge right at the beginning of physicians' careers.⁴ This is thought to be due to gender-related differences in negotiating salaries and startup packages, which end up potentiating over time as salaries increase by a fixed percentage.⁴ Women are less likely to receive mentorship around job negotiation skills, or due to cultural norms, may be less likely to ask for higher salaries and start-up packages.⁵ There also may be differences in opportunities available or in recruitment packages offered to new physician hires due to differences in perceived ability or achievement in medical school. A study performed at the Yale School of Medicine reported differences in receipt of Honors recognition for research theses by gender, that persisted after adjustment for underrepresented minority status, mentor effectiveness, additional time in medical school, obtaining competitive research funding, enrollment in a Master's degree program, a laboratory thesis project, and sponsoring department.⁶ This gender-based disparity in documented

achievement could lead to differences in opportunities to matriculate into more competitive residency programs (which often includes procedural specialties, as well as the most rigorous non-procedural training programs), thereby affecting subsequent salaries graduates are likely able to obtain upon completing these residency programs. Gender-blind grading practices in medical school should be tested to see if they result in fairer, unbiased outcomes.

Though a small portion of the gender pay disparity in this study was attributed to number of hours worked, improving policies to achieve better work-life balance across all medical specialties for both men and women may not only help close the gender pay gap but also reduce rates of burnout.⁷ Policies for men and women to take equal and appropriate time off for the birth or adoption of a child or to care for a sick family member should be supported.¹ On-call responsibilities should be shared fairly and workflows to reduce “pajama time” documenting clinical visits should be minimized.⁸ Along these lines, working part-time should not be penalized.¹ Compensation may be proportionally reduced, but evaluation of productivity and achievement should also be proportionally assessed. Using this approach, if a physician works part-time for a period of time, if s/he returns to full-time work, his or her compensation should equal that of a peer that worked full-time throughout.

Establishing institutional practices to support transparency in pay, in hiring practices, and in regular review of compensation is important ensure accountability of leadership to upholding the aforementioned practices. A diverse committee including a balanced number of men and women that have undergone implicit bias training should routinely review and compare compensation of all employees and correct unexplained imbalances.

Finally, creating programs that support the career advancement for junior women in medicine through targeted mentorship and sponsorship is key to promoting equity in senior and leadership positions, which in turn can support sustained implementation of all aforementioned strategies. In other fields, such as business and management, sponsorship has been shown to be an effective way to reduce disparities in pay and promotion, and to maintain accountability among leadership to maintain fair and equitable hiring and compensation practices.^{5, 9} These initiatives may occur at an institutional or national society level. The University of Pennsylvania developed a multi-pronged program to support advancement of women within their institution, with those in the intervention arm achieving greater efficiency and productivity.¹⁰ National professional societies can also have a unique role in supporting women’s engagement in prominent national

leadership roles to enhance promotion.¹¹ A program developed by the Society of General Internal Medicine pairs junior women in academic medicine with senior faculty members from different institutions in a 2-year advising relationship focused on sponsorship for targeted career advancement. Early results are promising, and if other national professional societies follow suit, additional gains in advancement of women to senior roles and to leadership positions can be expected. Women in these high-level positions can then act as role models, and also serve on committees to ensure equity in compensation and assessment of achievement across the spectrum from medical school through late career.

A variety of interrelated explanations for the persistent gender-based disparity in physician compensation have been identified that begin in medical school and then are amplified throughout the career trajectory. Now is the time to implement and test programs aiming to mitigate these identified causes of inequity throughout the career trajectory, and to enact policies such as transparency and periodic review of compensation to account for yet unexplained differences in the gender pay gap. With concerted attention, effort, and a shared commitment to equity, the field of medicine can correct the gender pay gap.

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