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resident burnout and widespread implementation of programs to support resident wellness are needed to not only protect the future of the urologic workforce but also to promote the well-being of ourselves and our colleagues.

Amanda C. North, Montefiore Medical Center, Bronx, NY

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EDITORIAL COMMENT



Physician burnout has become a hot topic among urologists since we started appearing on the most burned out list in well-publicized multispecialty studies such as Medscape.¹ One concern about these multispecialty studies is that urologists make up about 1% of the study population. The 2016 American Urological Association Census found that the rates of burnout among practicing urologists were better than previously reported.² Less is known about burnout among urology residents and this study is the first to look exclusively at urology trainees to assess burnout. Unlike the American Urological Association Census data which showed that practicing urologists do not have higher than average rates of burnout, the findings here suggest high rates of burnout among urology residents. One concern with these results is that this study had a very low response rate. We don't know if burned out residents are more likely to respond to a survey or if burn out prevents them from responding but this study only represents one-fifth of urology residents.

Although the American College of Graduate Medical Education has implemented work hour regulations, recognized the need to address burnout in residency, and mandated access to mental health services, it is apparent from this study that many institutions are failing to meet these requirements.³ It is imperative that our specialty follow the rules and regulations set by the American College of Graduate Medical Education and all urologists involved in academic medicine need to uphold these standards. If residents are consistently working more hours than are permitted and programs are not being cited, that implies dishonest reporting either on the part of the program directors or by the residents. The practice of medicine demands integrity and encouraging false reporting by our trainees is unacceptable.

High rate of burnout negatively impact our specialty. The number of applicants to urology residency programs has decreased over the last several years.⁴ The reasons for this downward trends are not clear but it is concerning to see this follow in the wake of so much negative publicity about burnout in urology. With impending workforce shortages in urology, we cannot afford to lose more residents. Further research into the causes of

AUTHOR REPLY

With rates approaching 60%, it is becoming irrefutable that urology has one of the highest levels of physician burnout in medicine. In addition to the mentioned Medscape survey, this observation has been supported by several large-scale studies (most notably, a multispecialty survey of 6880 physicians that compared attending physician burnout to the general population in 2011, 2014, and 2017).^{1,2} As with other multispecialty surveys, in this study urologists made up only 0.7%-1.9% of the responses. However, with urologists contributing to roughly 1.2% of the physician workforce, the urology cohort was likely representative of a national physician sample.

Not surprisingly, high burnout rates have similarly been reported in urology trainees. In a study of 3588 junior residents, urology residents had the highest level of burnout of all polled specialties (63.8%), while 8.6% demonstrated specialty-specific, and 15.5% demonstrated overall career-choice regret.³ These data are confirmed by data showing a high prevalence of specialty and career regret in urology trainees, especially in those exhibiting burnout.⁴

Our study reveals a 68.2% rate of burnout among surveyed urology residents, a rate nearly identical to general surgery trainees.⁵ As the editorial comment rightfully points out, our study is similarly subject to limitations from response bias. While our sample does not appear statistically dissimilar from the national complement of urology trainees,⁶ with a 20% response rate we remain concerned about under sampling. We also have concerns that programs where the morale is particularly low or where burnout remains a nonpriority may have been less likely to share a burnout survey with their residents. If this is true, burnout in our urology trainees may be even higher than what we report.

These findings should be alarming to all urologists. There are known downstream effects of burnout on patient satisfaction, medical errors, and physician retention. Even more striking is the fact that the risk of suicide for physicians is 1.5-2.5 times higher than in the general population. This data cannot be ignored. The question is: what will we do with this information? We have 2 choices: continue to question the validity of the data we see echoed repeatedly in various studies or decide that it is time for action. In our national work on physician well-being, we have seen our own profession fall behind other specialties in taking a proactive and decisive approach to combatting burnout in our physicians. Why has urology been slower to address this national crisis? What is the downside of taking this data seriously? And more importantly: what are the risks of not?

Daniel Marchalik, Ross Krasnow, Department of Urology, MedStar Georgetown University Hospital, Washington, DC; Office of Physician Well-being, MedStar Health, Washington, DC

¹ <https://www.medscape.com/slideshow/2019-lifestyle-burnout-depression-6011056>
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² <https://www.auanet.org/research/research-resources/aua-census/census-results>
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³ https://www.acgme.org/Portals/0/PFAAssets/ProgramRequirements/CPRs_Section%20VI_with-Background-and-Intent_2017-01.pdf Accessed May 7, 2019

⁴ <https://www.auanet.org/education/auauniversity/for-residents/urology-and-specialty-matches/urology-match-results> Accessed May 7, 2019

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EDITORIAL COMMENT



I commend Drs. Marchalik et al on their manuscript and work to help define contributors and mitigators to burnout among urology trainees. Their findings are consistent with a similar study by Elmore et al (2014) that demonstrated a 69% rate of burnout among general surgery trainees.¹ It is both curious and worrisome that rates of burnout are consistently this high, despite ACGME efforts to reduce resident work hours, improve learning: service ratios, and build programmatic supports into our training programs. Why is this so alarming? Burnout has been consistently linked to medical errors, suicidal ideation and attempts, and substance abuse and thus poses a great risk to our patients and our trainees.^{2–5} In a review of the role of healthcare leadership on physician burnout, Shanafelt and Noseworthy⁶ point out that the burden of prevention or treatment for burnout is often placed on the individual, with interventions like stress-reduction activities and coaching. However, in reality an integrated approach that focuses on treatment and prevention at all levels (individual, work unit, organization, National) is more effective. Two organizational programs noted here—access to mental health and structured mentoring programs—were shown to be important to reducing burnout. All trainees should have access to mental health treatments and be provided confidential opportunities to seek care. We need to work hard to reduce the stigma and shame surrounding mental health treatment by normalizing mental health as a part of self-care. Structured mentoring programs mitigated burnout in both this study and in the Elmore study. In an era of ever-increasing pressures for clinical productivity on faculty, demonstrating the value of faculty participation in mentoring and finding ways to protect these programs will be critical. In addition to programmatic supports like mentoring and mental health, the most important thing faculty can do is role model the primacy of self-care, seek meaning in joy in work, and build collegiality and community at work so that our future doctors can learn and hone their own resiliency skills.

Hadley M. Wood, Elyse A. Custódio, Department of Urology and Associate Professor, Case-Lerner COM; Department of Urology, Residency Training Program, Glickman Urological and Kidney Institute

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AUTHOR REPLY



We agree with the comment and commend it for its nuanced overview of the tension that currently exists in burnout science: on one hand, awareness of burnout and interventions related to it are increasing around the country; on the other hand, the needle seems to be moving too slowly. This slow progress has serious implication. A recent financial model of the economic impact of burnout to the US Healthcare system estimated the cost to be between \$2.6 and \$6.3 billion per year.¹ The impact on patient and physician lives is even more troubling.

While the numbers remain concerning, we feel that there is cause for optimism. Evidence-based intervention can indeed make a difference. A meta-analysis of 52 studies revealed that burnout-related programs had the ability to decrease burnout rates by an average of 10%.² In this analysis, organizational and structural interventions played a particularly important role.

We also fundamentally agree with the need to move away from the historic tendency to blame individuals for their burnout and then look to them to remedy it through resiliency training. While individual changes like mindfulness-based cognitive training³ and reading⁴ have been shown to have a positive effects on surgery trainee well-being, these interventions simply cannot exist in a vacuum. Instead, what we need is a clear recognition of the need for change and a commitment to that change from departmental and organizational leaders.

This is particularly important because leadership has a tremendous impact on physician well-being. An evaluation of a 12-question organizational leadership composite revealed that, even when controlling for gender, age, and specialty, each 1-point change on a 60-point leadership scale resulted in a 9% increase in the likelihood of professional satisfaction and a 3.3% decrease in the likelihood of burnout.⁵ These findings are staggering both in their magnitude and in the seeming simplicity of