Neurosurgical Forum LETTERS TO THE EDITOR

Rethinking the mentorship system in neurosurgery

TO THE EDITOR: We read with great interest the systematic review by Berardo et al.¹ (Berardo L, Gerges C, Wright J, et al. Assessment of burnout prevention and wellness programs for US-based neurosurgical faculty and residents: a systematic review of the literature. *J Neurosurg*. Published online October 30, 2020. doi: 10.3171/2020.6.JNS201531), which addressed the issue of preventing burnout among neurosurgery faculties and residents by the implementation of wellness programs.

Because of the particular nature of the job of the neurosurgeon who is entrusted to operate in delicate anatomical regions, neurosurgical training programs are renowned as very demanding. Recently, concerns have been raised regarding the well-being of the physicians at work, leading to the adoption of new laws such as the maximum weekly working time for residents set at 48 hours in France. Nevertheless, this duration seems difficult to apply in neurosurgery because residents need to learn from emergency cases during night shifts, as well as from regular surgery that requires sufficient operating room exposure.²

Residents are usually stressed by being in a low post-graduate year, insufficient operating room exposure, hostile mentors, additional social stress (family conflicts and financial issues), and work-life imbalance.¹ New contemporary concerns are the mismatch between the growing number of students in the neurosurgery programs and the low number of fellowships available (which induces stressful uncertainty for the residents' future early career),³ the limited access to neurosurgical literature and publication opportunities, and the fearful atmosphere caused by the recent judicialization of neurosurgical practice, which can lead to defensive attitudes and even professional disenchantment.⁴

Beyond these considerations, Baumgarten et al. showed that specific personality traits such as openness, agreeableness, and conscientiousness were protective, whereas neuroticism was negatively associated with burnout. They also showed that pleasure at work was protective.⁵ Shakir et al. reported that the diminution of social and personal stressors was associated with increased grit and resilience among residents, and that these two characteristics were protective.⁶

Neurosurgery residents are eager to learn the funda-

mentals of their future demanding job in decent conditions to acquire the surgical skills and the necessary theoretical knowledge to take care of their patients, and even to be introduced to an academic career. Rather than trying to implement measures to ease the burnout among their community, senior surgeons should stop encouraging the vicious circle of relentless work that is currently expected from residents.⁷ Instead, both sides could benefit from a meaningful buddy system, which could strengthen the confidence of the residents in their abilities and provide a lot of happiness to the senior surgeons in their mentorship.⁸

For too long, the neurosurgical community has adopted a passive attitude toward the issue of occupational health of its senior and junior practitioners; the fact that the majority of the references in the authors' review were published after 2010 is concrete evidence of this matter. Perhaps it is time to accept that residency training does not mean unnecessary suffering and that becoming a neurosurgeon is compatible with having a family life.⁹ Spiotta et al. showed that the implementation of a wellness program was associated with improvement of the residents' quality of life.¹⁰ We believe that rethinking the mentorship upstream would ease the heavy workload of neurosurgery residents and could make them happier in their professional and personal lives, which are often intermingled.

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Disclosures

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Response

We would like to thank Drs. Beucler, Sellier, Desse, Joubert, and Dagain for their comments on our work and the candid opinions they have provided. The authors focused on several salient points identified by both our work and the work of others.

With respect to the comments on the difficulties of training in the era of work-hour restrictions, we concede that ensuring adequacy of training in this environment is difficult. This challenge is undoubtedly exacerbated in France, given the more stringent 48-hour duty restriction. However, as the authors allude to, the gravity of neurosurgical training inspires an eagerness to go beyond obligation in the pursuit of proficiency. Additionally, senior neurosurgeons, many of whom trained in environments where no such regulations existed, often encourage these displays of dedication.

We argue that a possible solution is to improve the efficiency of training within the confines of safety for patients and trainees. In the US, trainees are responsible for the completion of tasks that do not serve to further education, yet are a requirement to patient care within the framework of our health systems. Trainees would be much better suited, in these instances, to spend that time in direct patient interactions or learning operative techniques. We firmly believe that significant room for improvement exists across the board with respect to efficiency, focus of training, and the framework of support provided by training programs. Although patient care should remain the cornerstone of all training, that care could be provided while

also ensuring that residents obtain the requisite knowledge to become excellent surgeons and clinicians without being overworked and while simultaneously having access to effective wellness programs and positive mentor-mentee relationships.

We empathize with trainees' disquiet in the face of medicolegal issues within neurosurgery. As the authors note, these concerns lead to defensive attitudes and professional disenchantment. However, we would like to draw attention to the assessment of Larkin et al. that poor physician-patient relationship is the most common underlying cause of medical malpractice suits in neurosurgery.¹ Patients have cited poor listening skills and insufficient explanations of medical conditions and treatment options as detractors from the therapeutic alliance.² We believe that neurosurgeon burnout, which is characterized by high levels of depersonalization and emotional exhaustion, is a likely contributor to poor physician-patient interactions.³ Thus, fear of litigation may be both a cause and a result of neurosurgeon burnout.

Several traits have been shown to be protective against burnout.^{4,5} However, rather than attempting to select for those traits, training programs should aim to create an environment that fosters wellness and career satisfaction. Although neurosurgery trainees experiencing burnout frequently state that they would choose neurosurgery again, 66% state that they would elect to train at another program.³ This emphasizes the importance of fit of both personality and academic interest between the trainees and their colleagues. While compatibility of academic interests fosters career advancement, genuine camaraderie may be a source of significant psychological and emotional support for trainees.

The only criticism we might direct toward the comments Dr. Beucler and colleagues provided is that most are again focused on trainees. We argue that neurosurgeons experience the peak of their career-related stress and are particularly susceptible to burnout as junior faculty members. The field as a whole is lacking with respect to systematically ensuring environments that lead to positive work experiences, adequate support staff, positive mentorship relationships with senior staff, personal and career advancement education, realistic clinical and academic goals, and access to faculty-specific wellness programs or measures to prevent burnout for faculty. This population has been woefully neglected in this regard. The dearth of literature identified by our review specific to this population is a testament to this point.

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