## LETTER TO THE EDITOR

In Reply to the Letter to the Editor Regarding "Distribution of Psychological Instability Among Surgeons"



## EDITOR:

We very much appreciate Bishay et al's thoughtful and complimentary analysis of our work. Overall, we share their assessment of the strengths and weaknesses of this initial exploration of the subject and would like to build on their comments to elaborate on a few nuances and perspectives.

As Bishay et al noted, our study was based on cross-sectional data from a nonprobabilistic sample and employed a short instrument to assess personality characteristics of surgeons. While our study has provided interesting insights, further methodologic advancements are necessary to enhance our understanding of the impact of stressful working conditions and traumatic events on the mental health of surgeons, as well as on professionals in the medical field more broadly.

First, the use of probabilistic sampling techniques would improve the external validity of future research. One potentially effective approach would involve a staggered sampling of multiple cohorts of recently graduated students in different countries and surveying them over an extended period.

Second, and building on this foundation, a longitudinal design would allow disentangling age, period, and cohort effects; facilitating the examination of changes over time; and, particularly relevant here, the analysis of how potentially traumatic events influence mental health and career trajectories. Moreover, the inclusion of elements from randomized controlled trials could provide a deeper understanding of the effects of counseling interventions.

Third, to fully comprehend the interplay among work conditions, traumatic events, and mental health, it would be necessary to employ a more comprehensive set of instruments for assessing mental health while also incorporating measures of personal and social resources, perceived demands, attitudes, and contextual information and living conditions. Focusing solely on the clinical context is likely to overlook the intricate mechanisms operating at both the individual and broader social levels. The costs associated with conducting such a comprehensive study would have to be considered in relation to the potential savings that could be achieved through reduced levels of absenteeism, turnover, and career change.

Regarding our sample: As noted by Bishay et al, it is indeed dominated by European participants and results may have been more drastic in the U.S. health system. It is our own perception that, presently, European health systems are in certain ways following the United States in terms of traditional economic competitiveness, administrative load, and medicolegal pressure. These trends and their impact on health care, as noted by Bishay et al, are indeed counterproductive and may endanger individual health practitioners themselves (including burnout) and patients through impacts on clinical performance (errors and lack of empathy). This can lead to systemic fragility, which is critical in an era of major global health threats<sup>1-3</sup> requiring urgent and profound transformation of health systems into more robust and resilient structures, as starkly illustrated by the COVID-19 pandemic.<sup>4</sup>

Regarding psychologic support seeking, we also agree with Bishay et al and would like to insist on cultural conventions, notably stigma,<sup>5</sup> particularly among surgeons. Conventions and stigma might not only hinder the active seeking of care, once aware of the need for it, but even identifying this need.<sup>6</sup> Perceived "practical obstacles" for systematic psychological support, including heavy workloads and irregular activity, might be overcome, like in other domains of high-reliability organizations (e.g., the aviation industry or firefighters).<sup>7</sup> However, the necessary changes of mentality, personal and institutional,<sup>8</sup> are profound and hindered by many deeply ingrained factors including strong competitiveness and a weak tendency for collaboration in surgeons.

Although these considerations illustrate how complex the issue of emotional stability and performance among surgeons is, potential progress may already emerge from basic principles and actions. These include enhanced collaboration and the human—and not financial—values, like humility and respect, driving both the care we provide and the work environments we create for ourselves. Our feeling is that these values might be protective, for our patients and ourselves, and in many ways truly efficient in the long run.

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