Burnout in Anesthesiology, Critical Care, and Perioperative Care Clinicians in Asia: A Developing Picture

James L. Reynolds\(^1\), Wei-Zen Sun\(^1,2\)

\(^1\)Asian Journal of Anesthesiology, Taipei, Taiwan
\(^2\)Department of Anesthesiology, National Taiwan University Hospital, Taipei, Taiwan

In our previous issue’s editorial, *Burnout in Anesthesiology and Perioperative Care Providers in Asia: Background and Context*, we recognized that a standardized definition of burnout is taking shape. Professional burnout involves exhaustion or a sense of depletion, negative attitudes toward work or toward the self, and impaired productivity.\(^1\) We also related that some have ventured or hinted that, although burnout, stress, sudden death, and suicide among anesthesiologists and other perioperative clinicians has received much more attention in Western societies,
and for a much longer period of time, there is evidence that the problems, in general, are at least as prevalent and at least as severe in Asia or parts of it.

We incorporate here various definitions of countries and regions as Asian, but in general follow the scheme used in The Stress And Burnout in Asian ICUs Study (SABA). We reach even wider where we mention Australia—often, along with some or all other parts of Oceania, excluded from categorization as Asian for social or biomedical research purposes—because of a compelling finding from a study that directly compared stress in anaesthetic trainees between Hong Kong and Victoria, Australia (finding burnout nearly twice as prevalent in Hong Kong).

In this follow-up editorial, we review highlights of the available information, sparse as it is, on burnout in anaesthesiologists and other perioperative, pain medicine, and critical care clinicians in specific countries and regions of Asia. Some data by subregion:

East Asia, Southeast Asia, Pacific

Australia, China, Hong Kong, Japan, Singapore, Taiwan

Percentages of physicians and nurses working in ICUs with burnout according to SABA: China: 61.2; Hong Kong: 61.5; Japan: 41.2; Taiwan: 63.5. (SABA did not obtain sufficient data to report results for all countries or regions.)

China: A survey of 395 anaesthesiologists across a wide sample of hospitals in six provinces in China suggested a serious problem with burnout as measured by the Maslach Burnout Inventory (MBI). It was found that burnout and emotional exhaustion (EE) were slightly higher among anaesthesiologists in China compared to other countries contemplated. EE among anaesthesiologists in China was associated more highly with urban over rural hospitals, with middle-aged, compared with younger or older anaesthesiologists, and with more highly educated anaesthesiologists. Anaesthesiologists with management responsibilities suffered less EE than did those without management responsibilities. In addition, researchers writing in 2018 and describing an “epidemic” among physicians in China, found that anaesthesiologists experience the highest rates of sudden death (informally called death from overwork or karoshi), along with surgeons, especially orthopedic surgeons, internists, and emergency medicine doctors in tertiary care hospitals.

A 69% prevalence of burnout was found among 2,873 anaesthesiologists in the Beijing–Tianjin–Hebei areas of China in 2018 according to the MBI-Human Service Survey. Young age, long weekly working hours, greater daily caseload, lower income, higher patient acuity, and insufficient or poor sleep quality were each found to be independently associated with burnout.

Hong Kong: According to the MBI, anaesthetic trainees suffered a markedly higher rate of burnout in Hong Kongese (65.1%) versus Victorian respondents (38.2%).

Singapore: Burnout rates were found to be 62.1% among anaesthesia residents in Singapore’s largest residency system, according to the abbreviated MBI (aMBI). However, other measures found burnout rates of 20.7% to 22.4% among the same residents, causing the authors to question whether the aMBI may grossly overestimate burnout.

Taiwan: Although we found no studies of burnout per se among Taiwanese anaesthesiologists, a sobering 54.9% of anaesthesiologists surveyed in Taiwan expressed an inclination to leave the specialty in a 2015 report, while anaesthesia residents reported working an average of many more hours per week (64) than they considered optimal (54). It was also reported, in 2015, that a minority (<40%) of anesthesia residents in Taiwan were satisfied with the amount and quality of their training in pain and critical care medicine.

South Asia

Afghanistan, India, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan, Nepal

Percentages of physicians and nurses working in ICUs with burnout according to SABA (if reported): India: 55.4; Bangladesh: 34.6.

Forty-seven percent of 1,178 Indian anaesthesiologists working in the state of Maharashtra reported that they from “many times” to “almost always” felt “used up/drained from work at the end of a working day” according to a 2017 report. Asked about “professional stress” levels, 22% reported “extreme” levels, while 69% reported moderate levels. Higher professional stress levels were associated with male gender, >8 h work per day, handling high-risk patients, working on weekends, and carrying work back home.

Among resident anaesthesiologists surveyed in a tertiary care academic center in North India, 61% en-
 endorsed the statement. I *think the dedication I invest in my work is more than what I should for my health* and 60% agreed with the statement *I risk my health when I pursue good results in my work*. These and other worrisome indicators of stress and burnout tended to increase with year of residency.11

Pakistan: The nearest relevant data we found was a report that anesthesiologists scored at the highest level of depression of all specialties as measured by an Urdu version of the Beck Depression Inventory (20 points). This was nearly twice the average score of the second-highest, radiologists (10.05).12

**Danger: Working While Asian?**

A landmark 2019 meta-analysis looked at the effects of long working hours and overtime on the *occupational health* of employed people generally. The authors noted that *occupational health* was inconsistently defined across included studies but that it importantly encompassed measures of cardiovascular and cerebrovascular diseases, hypertension, diabetes mellitus, anxiety and depression, stress, unhealthy behaviors such as smoking, excessive alcohol consumption, physical inactivity, and problems involving sleep disorders and insufficiency. While the findings are complex and nuanced, the authors stated “it was found that the effects of long working hours on the occupational health of Asian workers were more severe than for Western workers.”13

Studies have reported that workers in Asian countries and regions have longer working hours than workers in Western countries and regions.14,15 Overwork has been found common in China, Japan, Korea, Singapore, Hong Kong and Taiwan, and it has been reported that many workers in these countries and regions suffer disproportionately from cardiovascular heart diseases and cerebrovascular diseases due to overwork.13

An informal review of all the studies referenced in this article reveals no clear direct effect of gender on burnout among anesthesiologists and perioperative providers in Asia. Male caregivers in ICUs in Switzerland were found to suffer increased relative risk of burnout. And all caregivers in that study, whether male or female, were less likely to suffer burnout when their professional teams comprised higher proportions of females.16

In a sample of general working population adult Koreans, problematic work-life conflict was not differentially associated with musculoskeletal disorders (MSDs; proposed as a potential index for stress-related morbidity) across gender; however, males reporting difficulty managing childcare-related responsibilities suffered relatively more MSDs than did females, while females with difficulties in relation to elder-care or homemaking demands suffered relatively more MSDs than did males. Our investigation of the literature was not sufficiently comprehensive to allow us to make confident pronouncements on comparisons of prevalence or severity of burnout by region or gender, but there appears evidence to support the notion that at least in much of East Asia, especially in medium-high income regions, burnout in anesthesiologists is an especially prevalent and severe problem. We also speculate that the problem may be somewhat equally serious between genders but surmise that the related forces nevertheless likely differentially operate on males and females: Males are likely more negatively impacted by stronger social proscriptions against sharing emotional or mental health strains or difficulties, while females are likely more negatively impacted by the imposition of impossible joint professional and family obligations. These appear to be rich areas for study.

**Conclusion**

Wherever it occurs, East and West, professional burnout among caregivers generally, and among anesthesiologists, perioperative clinicians, and allied professionals, in particular, remains a poorly understood problem, even as its importance is increasingly recognized. A major 2018 review published in *JAMA* found that 182 intervention studies used 142 unique definitions for burnout. Unsurprisingly then, there was little agreement with respect to prevalence, on the magnitude of its impacts, or on the effectiveness or promise of various kinds of interventions.17

As our cursory review demonstrates, there has begun to emerge, especially since about 2015, a growing number of increasingly more careful studies using validated survey instruments that focus on burnout and overwork in anesthesiology and perioperative clinicians, especially in Asia. The developing picture is a disturbing one. In at least some Asian countries, perhaps especially in those of East Asia, cultural values around self-sacrifice and hard work have combined with under-supply of qualified clinicians to create unsustainable pressures on too many.
Assuming this increase in attention continues, we should learn more and more about professional burnout in anesthesiology in Asia, and therefore, we hope, how to better address it, within the coming years. It would also be important to study how some in the profession thrive, however rare such creatures might be.

Meanwhile, how can we even approach contemplating the cost to an individual of unhappiness in their work—for a year, for a decade, for several—the magnitude of loss when patient care suffers or when a depleted person finds themself having less to offer their families, friends, colleagues, or communities than they otherwise might?

Anesthesiologists and our allies need to advocate for healthcare systems (from the national to the institutional levels) and public policies that make more sense. We must show courage in reaching out to our colleagues so that sharing and support-seeking may become more normalized. While it seems obvious to advise that we take more proactive stances toward caring for ourselves and pushing for more humane working conditions, we must also beware that such advice may betray that we ourselves are participating, however consciously or unconsciously, in blaming the victims (ourselves). Have we missed something when working overtime on occupational health: a meta-analytic survey. Intensive Care Med. 2018;44(12):2079–2090. doi:10.1007/s00134-018-5432-1


References


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