



Analyzing healthcare provider burnout

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Part 1 of 2: This article reviews statistics related to stress and burnout while investigating factors contributing to burnout in healthcare providers. Part 2 will navigate mental health issues related to stress and burnout while exploring ways to mitigate burnout.

In 2021, the American Psychological Association surveyed essential workers on their well-being since the pandemic. The survey results indicated 54 percent of essential workers relied on unhealthy habits to cope, 50 percent gained more weight than wanted, 39 percent drank more alcohol, 29 percent said to have worsened mental health and 75 percent said they could use more emotional support.¹

Stress, burnout – along with other mental health issues such as anxiety, depression or suicidal ideation – have been exacerbated by the pandemic. Dentists, OMSs and other specialties working in the head and neck regions face challenges in that COVID-19 transmits through aerosol-generating procedures in the oral, nasal cavity and oropharynx. High risks of occupational exposure elicit high levels of work-related stress.

The additional pandemic-generated stress prompts dentists or surgeons to exit the specialty through early retirement, changing of career or, in rare instances, by suicide. The topics of wellness for dentists and surgeons have never been more pressing as many may still struggle behind the door with the stigma of openly discussing mental health issues either due to denial, feelings of shame or guilt, or fear of punitive actions from professional boards affecting existing practice.

The American College of Surgeons recently released a Statement on Surgeon Well-Being, in which it “recognizes the need to foster well-being, resilience, and work-life integration for all surgeons, regardless of their career stage.”² Imminent measures must be taken to mitigate stress and burnout in OMSs in order to guard both mental and physical health.



Work-related stress and burnout

The World Health Organization (WHO) defines work-related stress as “the response people may have when presented with world demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope.” WHO further elaborated on the causes of work-related stress to be attributed to: poor work organization (the way jobs and work systems are designed and the way they are managed), poor work design (lack of control over work processes), poor management, unsatisfactory working conditions and lack of support from colleagues and supervisors.³

The National Institute for Occupational Safety and Health in its *Stress at Work* manual states that job stress is a result of stressful working conditions and individual factors, and that early signs of job stress can include headache, sleep, disturbances, difficulty in concentrating, short temper, upset stomach, job dissatisfaction and low morale. Stress is often a short-term phenomenon when not managed properly, and it can lead to chronic stress which is harder to detect.⁴ Chronic stress eventually leads to burnout.

LaPorta⁵ articulated that “the greatest source of stress is the tendency to make the individual fit the situation rather than the other way around.” In other words, when the focus is on having the individual adapt to the environment, he or she could lose the sense of control, leading to high-stress situations.

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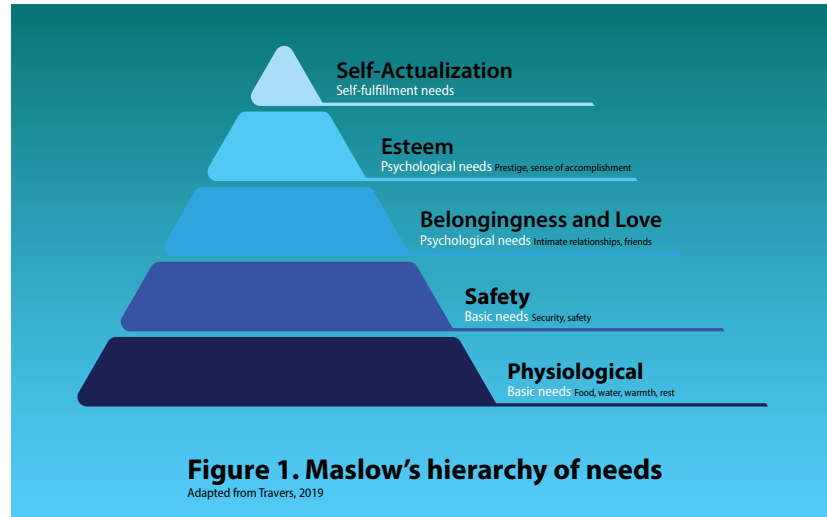
The unique challenges of OMSs – according to the author – were the combination of physical demands – including the requirement for “visual acuity, repetitive movement, static positions and exertion of force” – stress from running a business, including control of schedules, as well as the perception by the public negatively as someone who is “inflicting pain and inspiring anxiety and fear” rather than a “benevolent healer.” As a result, consequences of stress may lead to reduced work effectiveness, dissatisfaction of personal and professional life causing anxiety, depression, family issues, divorce and isolation.

Burnout, a term initially coined by psychologist Herbert Freudenberger, is included in the International Classification of Diseases (ICD-11) as an occupational phenomenon rather than a medical condition.⁶ In Maslach’s landmark study, burnout was defined based on three interrelated dimensions: 1) emotional exhaustion from prolonged emotional, physical and mental stress, 2) depersonalization (loss of compassion and indifference toward patients) and 3) reduced personal accomplishment (feeling less accomplished).^{7,8}

There is an interplay between Maslach’s three dimensions of burnout and Maslow’s hierarchy of needs (Figure 1) that explains basic human needs in a schematic pyramid. At the bottom of the pyramid lie basic needs such as food, shelter and safety. Psychological needs – such as relationships, belongingness and sense of accomplishment – stack at the middle, whereas self-fulfillment needs such as individual achievements sit at the top of the pyramid.

Emotional exhaustion, depersonalization and reduced personal accomplishment disrupts self-fulfillment needs in Maslow’s pyramid and, in turn, disrupts other lower levels and affects overall wellness. Compassion fatigue is an example of depersonalization which is thought to be an adaptive self-protective mechanism to protect oneself from suffering.⁸

Consequences of burnout are three-fold⁹, leading to suffering of 1) patient care: lower quality patient care, more medical errors and lower patient satisfaction, 2) physicians: substance use and misuse, suicidal ideation and more motor vehicle crashes due to fatigue, and 3) healthcare system: reduced physician productivity, increased job turnover causing less



patient access to physicians, and increased costs for the hospitals. More detailed manifestations of burnout are listed in Table 1.¹⁰

Burnout not homogenous in healthcare

Research shows that incidence of burnout is not homogeneous. Frontline healthcare professionals – such as dentists, surgeons, ER physicians, ICU nurses, occupational therapists, family physicians and pediatricians – are subjected to a higher rate of burnout. Mean burnout rate for surgeons is found to be around 40 percent to over 50 percent in some studies.

Contrary to previous beliefs that burnout occurs in the later career, many studies showed the reverse is true. Risk factors of burnout include: younger age, female gender, minorities, lower ranking in residency training especially PGY-1 residents, certain personality traits such as neuroticism, working more than 80 hours a week, medical error, substance use and depression and conflict with colleagues and patients.^{7,8,9,11}

In general, worries about contraction of diseases to self and family members, inadequate access to personal protective equipment, overwork and exhaustion, isolation, dealing with sick patients with negative emotions, patient cancellations and the moral duty to reduce work with parallel concerns regarding loss of income from office shutdown, all attribute to healthcare worker and business owner stress.^{12,13}

Residents and early-career surgeons

In a study conducted by the Resident Associate Society of American College of Surgeons COVID-19 Task Force, 96 percent of respondents felt impacted negatively by COVID-19,



Table 1. Manifestations of burnout
(Adapted from Alabi et al. 2021)

• Substance abuse
• Alcoholism
• Martial discord
• Increased avoidable medical errors
• Increased temperament
• Depression
• Depersonalization
• Feeling of guilt/unfulfillment
• Anxiety
• Disorganized/Frequent forgetfulness
• Sleeplessness
• Lack of vitality/Boredom
• Moodiness
• Aimlessness
• Difficult interpersonal professional relationship
• Exhaustion
• Suicide (worst case scenario)

both clinically and personally. Residents experienced greater than 50 percent reduction in operative volume, inability to meet minimum case requirements for residency completion, dissatisfaction with virtual training and worries about potential extension of training due to insufficient cases. Early-career surgeons are more concerned about decreased compensation and future job offers and advancement.¹⁴

Women in surgery

Existing gender disparity in OMS is multifactorial. Lack of mentorship and advancement opportunities, biases and discrimination against females within the specialty and female applicants' own concerns for work-life balance due to longer training time and family planning being some of the top reasons.^{15, 16} During quarantine, female surgeons with children faced childcare issues and often sacrificed work for domestic duties, exacerbating the pay gap. Additionally, female residents are often discouraged from starting a family. There is a lack of parental leave policy, with most programs allotting two days to two weeks for parental leave.¹⁶ Female

academic surgeons also may face more challenges with less time investment in authorship of publications, less pay and less tenure opportunities along with harsher judgments of external appearances.¹⁷

Oncological surgeons

Oncological surgeons deal with cancer patients and family members with emotional and physical devastation throughout the course of the disease, and despite advances in medicine, eventual death may still be inevitable. With exposure to chronic negative emotions, oncological surgeons may be more prone to compassion fatigue and burnout.¹⁰ ■

Dr. Hung is an OMS practicing in New Jersey. She is an alumna of the ADA Institute for Diversity in Leadership and a wellness ambassador with the ADA Wellness Ambassador Program, which is supported by the ADA Dental Team Wellness Advisory Committee of the ADA Council on Dental Practice.

References

1. *Essential workers more likely to be diagnosed with a mental health disorder during pandemic.* (2021, March 11). American Psychological Association. Retrieved January 23, 2023, from <https://www.apa.org/news/press/releases/stress/2021/one-year-pandemic-stress-essential>
2. *Surgeon Well-Being / ACS.* (2021). American College of Surgeons. Retrieved January 25, 2023, from <https://www.facs.org/about-ac/s/statements/surgeon-well-being/>
3. *Occupational health: Stress at the workplace.* (2020, October 19). World Health Organization (WHO). Retrieved January 23, 2023, from <https://www.who.int/news-room/questions-and-answers/item/occupational-health-stress-at-the-workplace>
4. *Stress FINAL.* (n.d.). CDC. Retrieved January 23, 2023, from <https://www.cdc.gov/niosh/docs/99-101/pdfs/99-101.pdf?id=10.26616/NIOSH PUB99101>
5. LaPorta, L. (2010). Occupational stress in OMS professionals. *OMS Clinics of North America*, 22, 495-502. 10.1016/j.coms.2010.07.006
6. *Burn-out an "occupational phenomenon": International Classification of Diseases.* (2019, May 28). World Health Organization (WHO). Retrieved January 23, 2023, from <https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases>

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7. Galaiya, R., Kinross, J., & Arulampalam, T. (2020). Factors associated with burnout syndrome in surgeons: a systematic review. *Ann R Coll Surg Engl*, 102, 401-407. 10.1308/rcsann.2020/0040
8. Travers, V. (2020). Burnout in orthopedic surgeons. *Orthopaedics and Traumatology: surgery and research*, 106, S7-S12. <https://reader.elsevier.com/reader/sd/pii/S187705681930324X?token=4262B689089BFBE198D0D3B94A58148B0AA796D834E436B2DE3476112D5A4E25A9A09193C599FFF5AA06AE0331463850&originRegion=us-east-1&originCreation=20230123224100>
9. West, C. P., Dyrbye, L. N., & Shanafelt, T. D. (2018). Physician burnout: contributors, consequences and solutions. *Journal of Internal Medicine*, 283, 516-529. 10.1111/joim.12752
10. Alabi, R. O., Hietanen, P., Elmusrati, M., Youssef, O., Almangush, A., & Makitie, A. A. (2021, October). Mitigating burnout in an oncological unit: a scoping review. *Frontiers in public health*, 9. 10/3389/fpubh.2021.677915
11. Moalem, J. (2017, August 1). *Burnout in Surgery* | ACS. The American College of Surgeons. Retrieved January 24, 2023, from <https://www.facs.org/for-medical-professionals/news-publications/journals/rise/articles/burnout/>
12. Preti, E., Di Mattei, V., Perego, G., Ferrari, F., Massetti, M., Taranto, P., Di Pierro, R., Madeddu, F., & Calati, R. (2020, July 10). The psychological impact of epidemic and pandemic outbreaks on healthcare workers: rapid review of the evidence. *Current Psychiatry Reports*, 22(43). 10.1007/s11920-020-01166-z
13. Vergara-Buenaventura, A., Chavez-Tunon, M., & Castro-Ruiz, C. (2020, December). The mental health consequences of Coronavirus disease 2019 pandemic in dentistry. *Disaster medicine and public health preparedness*, 14(6), e31-34. 10.1017/dmp/2020/190
14. Coleman, J. R., Abdelsattar, J. M., Glocker, R. J., & RAS-ACD COVID-19 Task Force. (2021, February). COVID-19 pandemic and the lived experience of surgical residents, fellow, and early-career surgeons in the American College of Surgeons. *J Am Coll Surg*, 232(2), 119-135. 10.1016/j.jamcollsurg.2020.09.026
15. Hung, C., Halpern, L., & Habib, R. (2021). *Behind Her Scalpel: A Practical Guide to Oral and Maxillofacial Surgery with Stories of Female Surgeons*. Indie Books International.
16. Diaz, D., Freiburg-Hoffmeister, D. L., Austin, T. M., Nyshadham, S., & Abramowicz, S. (2021). Parental policy in oral and maxillofacial surgery residency programs is necessary but not available: a cross-sectional survey of oral and maxillofacial surgery residents' attitudes toward parental leave. *JOMS*, 79(12), 2404-2410. 10.1016/j.joms.2021.08.150
17. Bishop, R., Woerner, J., & Stavropoulos, F. (2021). Effects of the COVID-19 pandemic on the professional career of women in oral and maxillofacial surgery. *OMS Clinics of North America*, 33, 475-480. 10.1016/j.coms.2021.06.002



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