Burnout: when there is no more fuel for the fire

Doctors practising in anaesthesia are constantly working in a high-fidelity, high-stakes environment.[1] Causes for this are numerous, with long working hours, sustained vigilance, the unpredictability of stressful situations, fear of litigation, team work and production pressure.[2] Chronic exposure to these stressors can lead to burnout syndrome.[3]

The Maslach Multidimensional Theory of Burnout is the most widely accepted model that defines the syndrome of burnout. The theory is based on three dimensions of burnout: exhaustion, distancing or depersonalisation, and reduced personal accomplishment.[4] Thus, burnout is not a single entity, but a combination of concepts, with exhaustion leading to depersonalisation and a simultaneous progression to a diminished sense of personal accomplishment.[4-6]

Burnout has been identified as an occupational hazard in the medical field.[3,7,8] Embriaco et al[9] assessed the level of burnout in physicians working in intensive care units and found that a high level of burnout was identified in 46.5%. Fields et al[10] determined the prevalence of burnout among paediatric intensivists and concluded that 36% of physicians were at risk of burnout, while 14% had burnt out.

Burnout has been well documented in anaesthesiology.[2,3,11-16] Morais et al[12] assessed stress and burnout in Portuguese anaesthesiologists and found that 57.9% experienced emotional exhaustion, 44.8% a lack of personal accomplishment and 90.9% depersonalisation. Kluger et al[17] measured burnout in Australian anaesthesiologists and found 20% experienced high levels of emotional exhaustion, 20% high levels of depersonalisation and 36% low levels of personal accomplishment.

The majority of studies have found that younger employees are more prone to high levels of burnout. Nyssen et al[18] studied 151 doctors working in anaesthesia and found the highest rate of burnout was in young trainees under 30 years of age. Gender has not been shown to be a strong predictor of burnout.[4] Maslach surveyed 2 247 male and 3 421 female participants during the implementation of the Maslach Burnout Inventory (MBI) model and concluded that no significant difference was found.

The interaction between the individual and his or her set of surroundings has been found to play an important role in burnout.[4] Burnout has been associated with work overload, in other words, increased job demand in the available time in which to produce results.[16] This specific stressor strongly relates to emotional exhaustion.[4]

Conflicts between supervisors and colleagues have also been seen as a cause of burnout.[4] Kluger et al[17] found that improving interpersonal relationships decreased burnout levels in Australian anaesthetists.

Lack of job resources, most notably social support, has been noted in several studies as being linked to increased levels of burnout.[4,8,9,11,13]A lack of feedback and autonomy relates to lack of resources. It has been found that when employees have little participation in decision-making, burnout levels are higher.[4]

Burnout and stress have physical, psychological and behavioural effects. The fight-or-flight response is activated each time a person is stressed.[13] The effects of long term increases in cortisol and disturbances in other hormonal pathways (hypothalamic-pituitary-adrenal axis and renin-angiotensin-aldosterone system) have been linked to most of the clinical symptoms seen in burnout.[19]

Increased risk of cardiovascular disease (hypertension and atherosclerosis), sleep disorders, immune compromise, gastrointestinal tract disturbances, fatigue and accelerated ageing all correlate with increases levels of stress and burnout.[13,14,20]

Consequences of burnout are legion, including, but not restricted to, reduced productivity, absenteeism, poor turnover and reduced patient safety.[3,4,13,17] This leads to a knock-on effect within the institution to cut costs in order to counterbalance reduced productivity.[11] The end result is a perpetual cycle, with the institution adding constraints, which, in turn, causes increased levels of stress and burnout in the medical professional.[11]

The increased rate of suicide, twice as high as that of the general public,[21] and the elevated incidence of chemical dependence[13,22] in doctors working in anaesthesia, is a major cause of concern.

The Professional Wellbeing Work Party (PWWP) of the World Federation of Societies of Anaesthesiologists (WFSA) found that 90% of its members considered burnout to be a significant problem, but only 14% had developed any kind of coping strategy with which to manage it.[23] In their literature review, Hyman et al[3] concluded that given the prevalence of burnout, more can be achieved in terms of research on finding mitigating strategies to address the problem.

Maslach et al[6] noted that stress results from a misfit between an individual and the job. Six areas were identified, namely

workload, control, reward, community, fairness and values. Some of these areas are not under the physician's direct control, e.g. workload. This makes an important argument for the involvement of management in alleviating stress and burnout in the workplace, as a reduction in case loads and after-hour calls can positively affect the situation.[9] Studies have shown that changing working conditions, managing interpersonal conflict, improving work organisation (e.g. the presence of skilled assistance in theatre) have all reduced burnout scores in anaesthetists.[9,24]

Most studies have focused on educational interventions to enhance individuals' capacity to cope and thus improve burnout.[4] Isaksson et al[25] carried out a cohort study on 185 doctors, followed by a self-reported assessment one year later, and found that short-term counselling could contribute to a reduction in emotional exhaustion. Similarly, Peterson et al[26] conducted a randomised controlled trial, with peer-support groups on 151 healthcare workers using a problem-based method, and found peer-support groups to be a useful and inexpensive way of decreasing stress and burnout in the workplace.

Time away from work has also been identified as a contributor to burnout reduction, as it was shown that part-time general practitioners had significantly less signs of burnout compared to their full-time counterparts.[27]

A review article by Jackson[13] discussed the benefits of "self-care" which comprises physical activity, nutrition and meditation, which enhance well-being and resilience as a way of promoting longevity and stress relief. A population-based survey on 474 physicians working in paediatric critical care, showed that routine exercise was associated with lower burnout scores.[10]

As mentioned above, the job environment or organisation must be seen as a modifiable factor. It has been found that organisational factors play a greater role than individual factors in causing burnout. More research has been carried out on individual intervention than changing the organisation as it was thought to be cheaper and easier. On its own, individual strategies fall short of their goal because in the workplace, a person has much less control over stressors, compared to other aspects of his or her life. Effective change occurs when both individual and organisational factors are addressed.[4]

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References

1. Gurman GM, Klein M, Weksler N. Professional stress in anesthesiology: a review. J Clin Monit Comput. 2012;26(4):329-335.
2. Riad W, Mansour A, Moussa A. Anesthesiologists work-related exhaustion: a comparison study with other hospital employees. Saudi J Anaesth. 2011;5(3):244-247.
3. Hyman SA, Michaels DR, Berry JM, et al. Risk of burnout in perioperative clinicians: a survey study and literature review. Anesthesiology. 2011;114(1):194-204.
4. Maslach C, Wilmar BS, Leiter MP. Job burnout. Annu Rev Psychol. 2001;52:397-422.
5. Maslach C, Jackson SE. Maslach Burnout Inventory-Human Services Survey. 3rd ed. In: Maslach C, Jackson SE, Leiter MP, editors. Mountain View: CPP; 1996.
6. Maslach C, Jackson SE, Leiter MP. Maslach Burnout Inventory Manual. 3rd ed. Palo Alto: Consulting Psychologists Press; 1996.
7. Coomber S, Todd C, Park G, et al. Stress in UK intensive care unit doctors. Br J Anaesth. 2002;89(6):873-881.
8. Klopper HC, Coetzee SK, Pretorius R, Bester P. Practice environment, job satisfaction and burnout of critical care nurses in South Africa. J Nurs Manag. 2012;20(5):685-695.
9. Embriaco N, Azoulay E, Barrau K, et al. High level of burnout in intensivists. Am J Respir Crit Care Med. 2007;175(7):686-692.
10. Fields AL, Ceurdon TT, Brasseux CO, et al. Physician burnout in pediatric critical care medicine. Crit Care Med. 1995;23(8):1425-1429.
11. Rama-Maceiras P, Parente S, Kranke P. Job satisfaction, stress and burnout in anaesthesia: relevant topics for anaesthesiologists and healcare managers? Eur Jo Anaesthesiology. 2012;29(7):311-9.
12. Morais A, Maia P, Azevedo A, Amaral C, Tavares J. Stress and burnout among Portuguese anaesthesiologists. Eur J Anaesthesiol. 2006;23(5):433-439.
13. Jackson SH. The role of stress in anaesthetists' health and well-being. Acta Anaesthesiol Scand. 1999;43(6):583-602.
14. De Oliveira GS, Almeida MD, Ahmad S, et al. Anesthesiology residency program director burnout. J Clin Anesth. 2011;23(3):176-182.
15. Abut YC, Kitapcioglu D, Erkalp K, et al. Job burnout in 159 anesthesiology trainees. Saudi J Anaesth. 2012;6(1):46-51.
16. Downey RL, Farhat T, Schumann R. Burnout and coping amongst anesthesiologists in a US metropolitan area: a pilot study. Middle East J Anesthesiol. 2012;21(4):529-534.
17. Kluger MT, Townsend K, Laidlaw T. Job satisfaction, stress and burnout in Australian specialist anaesthetists. Anaesthesia. 2003;58(4):339-345.
18. Nyssen AS, Hansez I, Baele P, et al. Occupational stress and burnout in anaesthesia. Br J Anaesth. 2003;90(3):333-337.
19. Weber A, Jaekel-Reinhard A. Burnout syndrome: a disease of modern societies? Occup Med (Lond). 2000;50(7):512-517.
20. Melamed S, Shirom A, Toker S, et al. Burnout and risk of cardiovascular disease: evidence, possible causal paths, and promising research directions. Psychol Bull. 2006;132(3):327-353.
21. Neil HAW, Fairer JG, Coleman MP, et al. Mortality among male anaesthetists in the United Kingdom, 1957-83. Br Med J (Clin Res Ed). 1987;295(6594):360-362.
22. Weeks AM, Buckland MR, Myles PS, Morgan EB. Chemical dependence in anaesthetic registrars in Australia and New Zealand. Anaesth Intensive Care. 1993;21(2):151-155.
23. Professional Wellbeing Working Party of WFSA. It is time to reflect and do something about anaesthesiologists' occupational health? World Federation of Societies of Anaesthesiologists [homepage on the Internet]. 2011. c2012. Available from: http://www.anaesthesiologists.org/news/newsletter-archive/newsletter-spring-2011
24. Embriaco N, Papazian L, Kentish-Barnes N, et al. Burnout syndrome among critical care healthcarre workers. Curr Opin Crit Care. 2007;13(5):482-488.
25. Isaksson Rø KE, Gude T, Tyssen R, Aasland OG. Counselling for burnout in Norwegian doctors: one year cohort study. Br Med J. 2008;337(7679):1146-1149.
26. Peterson U, Bergström G, Samuelsson M, et al. Reflecting peer-support groups in the prevention of stress and burnout: randomized controlled trial. J Adv Nurs. 2008;63(5):506-516.
27. Kirwan M, Armstrong D. Investigation of burnout in a sample of British general practitioners. Br J Gen Pract. 1993;45(394):259-260.