Health Professional Burnout

Amit Sood, MD FACP

What is Burnout?

Burnout is often defined as prolonged intra-personal and inter-personal stress that leads to emotional exhaustion, depersonalization, and a perception of low personal accomplishment (professional efficacy). In simple terms burnout is a syndrome of loss – of uplifting emotions, compassion toward others, and compassion toward self.

Emotional exhaustion – Professionals experiencing burnout experience few positive emotions, experience exaggerated negative emotions from stressors, and take considerable time to recover their baseline.

Loss of compassion – Burnt out professionals become judgmental and cynical of others. They see patients as problems, blame them for their illness, and become callous in their interactions. This leads to loss of professionalism, disengagement, and lower work performance.

Loss of self-compassion – Low self-compassion is common. In burnout out professionals, loss of self-compassion is more extreme, with disregard for personal accomplishment, loss of purpose, low morale, loss of self-efficacy, and excessive self-judgment.

Burnout affects about 30 to 70 percent of professionals in different industries, with the prevalence considerably increasing in the previous decade. (1)

Several expressions are used to describe burnout, often related to its effects. Some of them are:

- Detachment
- Disengagement
- Negative attitude
- Cynicism
- Irritability
- Withdrawal
- Loss of idealism
- Low motivation
- Exhaustion
- Debilitation
- Inefficacy
- Low morale

Burnout and depression are related but likely distinct entities. Burnout is job related, depression affects every aspect of life.(2-4) Similarly, physical fatigue alone or work dissatisfaction aren't enough to classify as burnout. Central features that suggest the presence of burnout are marked and persistent deficit in positive emotions along with loss of compassion.

The opposite of burnout is engagement, wherein the professionals work with vigor, involvement, and efficacy.(5)

How is Burnout Measured?

Many scales have been developed to measure burnout. Depending on the number of dimensions included, three different types of scales are recognized:

- Scales that include all three dimensions (emotional exhaustion, depersonalization, low personal accomplishment): Maslach(6), Bergen(7)
- Scales that include two dimensions: Oldenburg(8)
- Scales that include just one dimension – Shirom-Melamed(9), Copenhagen(10)

The most widely measurement scale has been the Maslach burnout inventory (MBI) that has 22 items, with nine items on emotional exhaustion, five items on depersonalization, and eight items on low personal accomplishment.

Researchers have validated single items from MBI for emotional exhaustion and depersonalization and found them to provide excellent correlation with the full MBI.

Using these measures, researchers have documented close to 50 percent prevalence of burnout, both in medical students, fellowship trainees, and practicing and academic physicians.

Causes of Burnout

Health professional burnout happens from a combination of cognitive overload and emotional depletion in a health system that is increasingly dominated by business focus and that fosters isolation.

Researchers have developed several different models of burnout including the transactional model, job demand – resources model, (11) conservation of resources model, (12) and areas of work life model.(13)

Overall, burnout, particularly in the health-care, hospitality, and other caring professions is related to imbalance in three factors: asymmetry, load, capacity.

Asymmetry: Asymmetry is the disconnect between the front end and the back end. Many professions at the front end are people-oriented and attract passionate professionals driven to serve. Health care professionals are repeatedly reminded to deliver compassionate care with full commitment to the patients (go the extra mile, do whatever it takes). Same is true for hospitality industry. Yet at the back end most such professions are paper, payer, and productivity-oriented systems. Rigid rules, bottom-line focus, efforts to outdo competition, increasing complexity, constant demand-resource imbalance, loss of autonomy, social & political influence, hard governance, declining reimbursement, increased capital expenditure, personnel shortage, cyber threats – these all adversely affect the professionals. As one leader was telling the author, “90 percent of the discussion in our meetings revolves around dollars or regulation.” This asymmetry eventually leads to compassion fatigue, loss of meaning, and burnout.

Asymmetry affects not just health care and hospitality industry, but most professions these days, because increasingly industries are now becoming high touch professions. Most professionals, whether they are bankers, attorneys, IT executives, manufacturers, or teachers, have to deal with difficult customers, mental health issues, irrational demands, and more, predisposing them to burnout.

Load: The load human brains have to lift is a combination of cognitive and emotional load. Cognitive load is the total amount of work people do. In the knowledge economy, most of this work involves using

attention, judgment, memory, and decision-making areas of the brain. The greater the work load, lower the efficiency, flexibility and resources; higher the proportion of the work that the individual detests, greater the cognitive load. Work load at night, at home, and in work areas considered less desirable, increases the odds of burnout. Here is one equation for your daily cognitive load:

- **Cognitive load = [Work load – (Efficiency + Flexibility + Resources + Individual preferences)]**

Cognitive load thus relates not only to the total load, but also the quality of work (providing direct patient care versus struggling with the electronic medical record).

Emotional load is the total load of negative emotions one has to endure each day. This includes a combination of stress, lack of control, value conflicts, loss of meaning, perceived unfairness, loneliness, and lack of reward. Worse personal relationships, related to insufficient time spent with the family worsens burnout. Here is one equation for your daily emotional load:

- **Emotional load = [Stressors – (Control + Values + Meaning + Fairness + Community + Personal Relationships + Reward)]**

Capacity: Capacity is an individual or group's ability to absorb the asymmetry, and cognitive and emotional loads, before they start buckling and burning out. About third to half of the people have some combination of genetic vulnerability and/or epigenetic predisposition (raised in difficult environment), that increases their risk of burnout when faced with adult stressors. This is combined with our brain's tendency for excessive rumination, negativity bias, proclivity to compare, and discount the good – most people operate with limited capacity to handle asymmetry, and the cognitive and emotional load they face these days.

We believe the amount of load the world dumps on us these days – work, money, relationships, health, crime, political uncertainty, loneliness, loss of meaning – has exceeded most citizens' ability to lift that load – hence the widespread burnout, which likely will only increase for the foreseeable future unless we get serious about improving mental health and wellbeing, and optimizing the load.

Risk Factors for Burnout

Most burnout research is correlational and self-reported, hence the associations are inconclusive. Some of the associations of burnout, particularly in health care include:

- Electronic health records (EHRs): Physicians using EHRs and entering orders on computers were less satisfied with the amount of clerical task and had higher risk of burnout.(14)
- For every hour spent seeing patients, physicians spend 2 hours doing EHR and other clerical work that increases risk of burnout.(15-17)
- Leadership – A one point improvement in leadership was associated with 9% improvement in satisfaction.(18)
- Greater administrative burden.(19)
- Less time spent with activities of personal preference.(20)
- Lawsuits.(21)

- Less collaboration.
- Lower control over aspects of work.
- Among medical students, feeling lack of personal accomplishment was associated with burnout.(22)
- After medical error, hope helped decrease distress.(22)
- Aggression against the self (instead of self-compassion) increases the risk of burnout.(23)
- Some specialties such as primary care and emergency medicine have higher risk of burnout.
- Private practitioners and physicians paid based on incentive or performance have higher risk of burnout.
- Slightly higher risk of burnout among female physicians, younger physicians, childcare, and working spouse.
- Underlying mental health issues.

The above is only a partial list as this is an area of active ongoing research. Most industries have their own specific reasons that are the immediate mediators of burnout. Specific reasons for each industry is a topic that is too vast to cover in this limited review. Further, within each industry, individual companies and organizations have unique burnout reasons. Hence the need to customize solutions.

Impact of Burnout

Burnout negatively affects every domain of work and life.

- Emotionally, burnout is associated with stress, depression, addiction, and suicide.
- Socially, burnout predisposes to worse personal relationships.
- Physically, professionals with burnout experience multiple symptoms (including musculoskeletal symptoms, pain, GI issues, fatigue, insomnia), and increased risk of accidents and heart disease.
- Occupationally, burnout predisposes to deficits in professionalism, worse patient/client satisfaction, compromised safety, lower productivity, higher turnover, worse prescribing habits and test ordering for physicians increasing the cost of care, lower patient access, increased risk of and worse outcomes from malpractice suit. Burnt out physicians are also less satisfied with their job and are more likely to decrease their future effort. Each one point increase in burnout has been associated with about 40% decrease in effort over the next 24 months.

Most of these associations are cross-sectional. However, a few prospective studies also support these findings.

Some of the specific negative effects noted in individual studies include:

- Higher number of errors.(24, 25)
- Lower chance of considering health care as a calling.(26)
- Substance use.(27, 28)
- Worse patient satisfaction.(29-31)
- Increased risk of malpractice claims.(32)
- Worse patient adherence to treatment.(33)
- Increased physician turnover, that can be expensive.(34, 35)
- Decreased productivity.(36, 37)
- Worse physical health (with similar impact as chronic stress).
- One unit higher burnout was associated with 1.4 unit increased risk of hospital admissions for mental health, and 1 unit increased risk of hospital admissions for cardiovascular events.(38)
- Increased fibrinogen and C reactive protein (markers of inflammation).(39)

- 90% of the professionals with severe burnout experience physical symptoms or diagnosed psychiatric illness – commonest are musculoskeletal symptoms and depression.(40)

The above is again a partial list with this being an active area of research.

The impact on physical and emotional health, relationships, work performance, health-care costs and turnover makes a strong business case for investing in decreasing burnout.(41)

Solutions

Three basic ideas to structure burnout solutions are:

1. Since burnout has origins in both organizational and individual factors, the solutions would apply at both the levels. They are like two wheels of a bicycle that would ideally collaborate and not compete with each other. Burnout mitigation thus is a shared organizational and institutional responsibility. Arguing this versus that (individual versus organizational), isn't a good use of resources and judgment, and confuses the field.
2. The solutions are best customized to the individual facility or system after a good understanding of the local factors predisposing to burnout.
3. Involvement of leadership at the highest level and engagement of the staff in designing the solutions is critical to long-term success.

Some of the specific approaches found beneficial in health care include:

- Physician engagement groups improved meaning and engagement and decreased depersonalization.(42)
- Good authentic leaders are protective of their staff from burnout.(43) In a research study, 11% risk of burnout and 47% satisfaction was related to supervisor. Having the right leaders and training them to make sure leadership actions are aligned with the vision and mission, and includes the staff in decision making, mitigates burnout.
- Physician-organization collaboration by helping control, camaraderie, and opportunity for excellence decreases risk of burnout.(44)
- Additional specific interventions
    - Conduct focus groups
    - Identify specific planned changes, implement, measure
    - Focus on operational efficiency
    - Find creative ways to capture revenue (increase point of service collection, supply cost, documentation etc.)
- Increasing civility in the organization is helpful for emotional health.(45-53)
- Promoting flexibility (such as flexible calendars) enhances satisfaction.
- Cultivating culture of self-care helps improve physical and emotional health.
- Optimizing expectations helps balance demand with resources.

This author's preferred personal approach to burnout is to offer a combination of organizational and individual approaches, both customized to the individual/team/organization. The organizational and individual approaches are best selected based on the identified drivers of burnout from both qualitative and quantitative assessment.

This document is a gist of the literature we have collected on burnout. This is a work in progress and will be further updated with additional insights in the coming months and years.

Please reach out to us for further information.

References

1. Shanafelt TD, Hasan O, Dyrbye LN, Sinsky C, Satele D, Sloan J, et al. Changes in Burnout and Satisfaction With Work-Life Balance in Physicians and the General US Working Population Between 2011 and 2014. Mayo Clinic proceedings. 2015;90(12):1600-13.
2. Toker S, Biron M. Job burnout and depression: unraveling their temporal relationship and considering the role of physical activity. The Journal of applied psychology. 2012;97(3):699-710.
3. Schonfeld IS, Bianchi R. Burnout and Depression: Two Entities or One? Journal of clinical psychology. 2016;72(1):22-37.
4. Hakanen JJ, Schaufeli WB. Do burnout and work engagement predict depressive symptoms and life satisfaction? A three-wave seven-year prospective study. Journal of affective disorders. 2012;141(2-3):415-24.
5. Schaufeli WB, Bakker AB, Salanova M. The measurement of work engagement with a brief questionnaire: a cross-national study. . Educ Psychol Meas. 2006;66:701-16.
6. Maslach C, S.E. J. The measurement of experienced burnout. . J Occupat Behav 1981;2:99-113.
7. Feldt T, Rantanen J, Hyvonen K, Makikangas A, Huhtala M, Pihlajasaari P, et al. The 9-item Bergen Burnout Inventory: factorial validity across organizations and measurements of longitudinal data. Industrial health. 2014;52(2):102-12.
8. Halbesleben JBR, Demerouti E. The construct validity of an alternative measure of burnout: investigation of the English translation of the Oldenburg Burnout Inventory. . Work Stress 2005;19:208-20.
9. Shiron A, Melamed S. A comparison of the construct validity of two burnout measures in two groups of professionals. . Int J Stress Manage. 2006;13:176-200.
10. Kristensen TS, Borritz M, Villadsen E. Kristensen TS, Borritz M, Villadsen E et al. The Copenhagen Burnout Inventory: a new tool for the assessment of burnout. . Work Stress 2005;19:192-207.
11. Bakker AB, Demerouti E. The Job Demands-Resources model: state of the art. . J Manag Psychol 2007;22:309-28.
12. Hobfoll SE, Freedy J. Conservation of resources: a general stress theory applied to burnout. In: In: Schaufeli WB eMC, editor; Marek T, editor. (eds). editor. Professional burnout: recent developments in theory and research. New York: Taylor & Francis,; 1993. p. 115-29.
13. Leiter MP, Maslach C. Areas of worklife: a structured approach to organizational predictors of job burnout. In: In: Perrewe PL e, Ganster DC, editor. (eds). , editor. Research in occupational stress and well-being,. 3. Oxford: Elsevier; 2004. p. 91-134.
14. Shanafelt TD, Dyrbye LN, Sinsky C, Hasan O, Satele D, Sloan J, et al. Relationship Between Clerical Burden and Characteristics of the Electronic Environment With Physician Burnout and Professional Satisfaction. Mayo Clinic proceedings. 2016;91(7):836-48.
15. Sinsky C, Colligan L, Li L, Prgomet M, Reynolds S, Goeders L, et al. Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties. Annals of internal medicine. 2016;165(11):753-60.
16. Arndt BG, Beasley JW, Watkinson MD, Temte JL, Tuan WJ, Sinsky CA, et al. Tethered to the EHR: Primary Care Physician Workload Assessment Using EHR Event Log Data and Time-Motion Observations. Annals of family medicine. 2017;15(5):419-26.
17. Young RA, Burge SK, Kumar KA, Wilson JM, Ortiz DF. A Time-Motion Study of Primary Care Physicians' Work in the Electronic Health Record Era. Family medicine. 2018;50(2):91-9.
18. Rao SK, Kimball AB, Lehrhoff SR, Hidrue MK, Colton DG, Ferris TG, et al. The Impact of Administrative Burden on Academic Physicians: Results of a Hospital-Wide Physician Survey. Academic medicine : journal of the Association of American Medical Colleges. 2017;92(2):237-43.
19. Shanafelt TD, Gorringe G, Menaker R, Storz KA, Reeves D, Buskirk SJ, et al. Impact of organizational leadership on physician burnout and satisfaction. Mayo Clinic proceedings. 2015;90(4):432-40.
20. Shanafelt TD, West CP, Sloan JA, Novotny PJ, Poland GA, Menaker R, et al. Career fit and burnout among academic faculty. Archives of internal medicine. 2009;169(10):990-5.

21. Balch CM, Oreskovich MR, Dyrbye LN, Colaiano JM, Satele DV, Sloan JA, et al. Personal consequences of malpractice lawsuits on American surgeons. Journal of the American College of Surgeons. 2011;213(5):657-67.
22. Paro HB, Silveira PS, Perotta B, Gannam S, Enns SC, Giaxa RR, et al. Empathy among medical students: is there a relation with quality of life and burnout? PloS one. 2014;9(4):e94133.
23. Gascon S, Leiter MP, Andres E, Santed MA, Pereira JP, Cunha MJ, et al. The role of aggressions suffered by healthcare workers as predictors of burnout. Journal of clinical nursing. 2013;22(21-22):3120-9.
24. Shanafelt TD, Balch CM, Bechamps G, Russell T, Dyrbye L, Satele D, et al. Burnout and medical errors among American surgeons. Annals of surgery. 2010;251(6):995-1000.
25. Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. Annals of internal medicine. 2002;136(5):358-67.
26. Jager AJ, Tutty MA, Kao AC. Association Between Physician Burnout and Identification With Medicine as a Calling. Mayo Clinic proceedings. 2017;92(3):415-22.
27. Jackson ER, Shanafelt TD, Hasan O, Satele DV, Dyrbye LN. Burnout and Alcohol Abuse/Dependence Among U.S. Medical Students. Academic medicine : journal of the Association of American Medical Colleges. 2016;91(9):1251-6.
28. Oreskovich MR, Shanafelt T, Dyrbye LN, Tan L, Sotile W, Satele D, et al. The prevalence of substance use disorders in American physicians. The American journal on addictions. 2015;24(1):30-8.
29. Rashid A, Forman W, Jagger C, Mann R. Consultations in general practice: a comparison of patients' and doctors' satisfaction. BMJ (Clinical research ed). 1989;299(6706):1015-6.
30. Haas JS, Cook EF, Puopolo AL, Burstin HR, Cleary PD, Brennan TA. Is the professional satisfaction of general internists associated with patient satisfaction? Journal of general internal medicine. 2000;15(2):122-8.
31. Grol R, Mokkink H, Smits A, van Eijk J, Beek M, Mesker P, et al. Work satisfaction of general practitioners and the quality of patient care. Family practice. 1985;2(3):128-35.
32. Jones JW, Barge BN, Steffy BD, Fay LM, Kunz LK, Wuebker LJ. Stress and medical malpractice: organizational risk assessment and intervention. The Journal of applied psychology. 1988;73(4):727-35.
33. DiMatteo MR, Sherbourne CD, Hays RD, Ordway L, Kravitz RL, McGlynn EA, et al. Physicians' characteristics influence patients' adherence to medical treatment: results from the Medical Outcomes Study. Health psychology : official journal of the Division of Health Psychology, American Psychological Association. 1993;12(2):93-102.
34. Williams ES, Konrad TR, Scheckler WE, Pathman DE, Linzer M, McMurray JE, et al. Understanding physicians' intentions to withdraw from practice: the role of job satisfaction, job stress, mental and physical health. Health care management review. 2001;26(1):7-19.
35. Shanafelt TD, Raymond M, Kosty M, Satele D, Horn L, Pippen J, et al. Satisfaction with work-life balance and the career and retirement plans of US oncologists. Journal of clinical oncology : official journal of the American Society of Clinical Oncology. 2014;32(11):1127-35.
36. Dewa CS, Loong D, Bonato S, Thanh NX, Jacobs P. How does burnout affect physician productivity? A systematic literature review. BMC health services research. 2014;14:325.
37. Shanafelt TD, Mungo M, Schmitgen J, Storz KA, Reeves D, Hayes SN, et al. Longitudinal Study Evaluating the Association Between Physician Burnout and Changes in Professional Work Effort. Mayo Clinic proceedings. 2016;91(4):422-31.
38. Toppinen-Tanner S, Ahola K, Koskinen A. et al. Burnout predicts hospitalization for mental and cardiovascular disorders: 10-year prospective results from industrial sector. . Stress Health. 2009;25:287-96.
39. Toker S, Shirom A, Shapira I, Berliner S, Melamed S. The association between burnout, depression, anxiety, and inflammation biomarkers: C-reactive protein and fibrinogen in men and women. Journal of occupational health psychology. 2005;10(4):344-62.
40. Ahola K. Occupational burnout and health. . People and Work Research Reports 81 Helsinki: Finnish Institute of Occupational Health. 2007.
41. Shanafelt T, Goh J, Sinsky C. The Business Case for Investing in Physician Well-being. JAMA internal medicine. 2017;177(12):1826-32.
42. West CP, Dyrbye LN, Rabatin JT, Call TG, Davidson JH, Multari A, et al. Intervention to promote physician well-being, job satisfaction, and professionalism: a randomized clinical trial. JAMA internal medicine. 2014;174(4):527-33.

43. Spence Laschinger HK, Wong CA, Grau AL. The influence of authentic leadership on newly graduated nurses' experiences of workplace bullying, burnout and retention outcomes: a cross-sectional study. International journal of nursing studies. 2012;49(10):1266-76.
44. Swensen S, Kabcenell A, Shanafelt T. Physician-Organization Collaboration Reduces Physician Burnout and Promotes Engagement: The Mayo Clinic Experience. Journal of healthcare management / American College of Healthcare Executives. 2016;61(2):105-27.
45. Yanchus NJ, Periard D, Osatuke K. Further examination of predictors of turnover intention among mental health professionals. Journal of psychiatric and mental health nursing. 2017;24(1):41-56.
46. Spence Laschinger HK, Leiter MP, Day A, Gilin-Oore D, Mackinnon SP. Building empowering work environments that foster civility and organizational trust: testing an intervention. Nursing research. 2012;61(5):316-25.
47. Nikstaitis T, Simko LC. Incivility among intensive care nurses: the effects of an educational intervention. Dimensions of critical care nursing : DCCN. 2014;33(5):293-301.
48. Nicholson RM, Leiter MP, Laschinger HK. Predicting cynicism as a function of trust and civility: a longitudinal analysis. Journal of nursing management. 2014;22(8):974-83.
49. Maslach C, Leiter MP. New insights into burnout and health care: Strategies for improving civility and alleviating burnout. Medical teacher. 2017;39(2):160-3.
50. Leiter MP, Laschinger HK, Day A, Oore DG. The impact of civility interventions on employee social behavior, distress, and attitudes. The Journal of applied psychology. 2011;96(6):1258-74.
51. Leiter MP, Day A, Oore DG, Spence Laschinger HK. Getting better and staying better: assessing civility, incivility, distress, and job attitudes one year after a civility intervention. Journal of occupational health psychology. 2012;17(4):425-34.
52. Laschinger HK, Read EA. The Effect of Authentic Leadership, Person-Job Fit, and Civility Norms on New Graduate Nurses' Experiences of Coworker Incivility and Burnout. The Journal of nursing administration. 2016;46(11):574-80.
53. Kawakami N, Takao S, Kobayashi Y, Tsutsumi A. Effects of web-based supervisor training on job stressors and psychological distress among workers: a workplace-based randomized controlled trial. Journal of occupational health. 2006;48(1):28-34.