

Physician Burnout as an Individual and Public Health Issue: The Need to Reassess Best Use of Resources

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In May of 2016, the MSSNY created a Stress and Burnout Task Force. This Task Force was charged to formulate a strategy and plan of action to fight burnout and reduce stress among the constituents of the MSSNY. The following article is the first of a miniseries that will address the following topics: the problem of burnout, current state of the State (burnout survey), solutions at the individual and organizational level, and opportunities for collaboration and advocacy.

INTRODUCTION AND DEFINITION

Physicians and other healthcare professionals are the proximal reason for the quality of care provided to patients. What effect does increasing high-level and chronic occupational stress imposed from multiple uncoordinated sources have on them personally and ultimately the patients they serve? There is overwhelming evidence that the effect is devastating, but the level of awareness of this fact is slow to be recognized by the clinicians, the healthcare systems, and the sources of the stress. **Burnout is defined as a psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment** ⁽¹⁾. Each one of these definition criteria can have deleterious effects on the provider-patient interaction as shown in table 1.

The human condition of burnout is the same across many

healthcare professions, but the specific stressors differ by profession. This article will focus upon physician burnout as a personal and public health issue, calling the question to reassess the best use of resources and better understanding the forces involved.

AN INCREASINGLY RECOGNIZED EPIDEMIC FORGES A REFOCUS ON THE EXPERIENCE OF PROVIDING CARE

The widespread problem of physician burnout has made it into many press outlets including the *New York Times*, *Time*, *US News and World Report*, and *Forbes* to name a few. Our patients know we are going through this dilemma as a group and now so do health care institutions.

From the period of 2011 to 2014, burnout in physicians rose from 46% to 54% while burnout in the general population remained about the same. Work/life balance went up in the general population and decreased in physicians during the same time ⁽²⁾.

The forces involved in the creation of burnout are often considered nebulous, sometimes subterranean because they are an accumulation of a massive number of factors. Our own medical culture of endurance and somewhat super-human internal perceptions of ourselves and external

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Table 1.

Burnout Criteria	Effect on Staff-Patient Interaction
<ul style="list-style-type: none"> Emotional Exhaustion 	<ul style="list-style-type: none"> Delay of needed interactions with patient Less tolerance, irritability Not much left to give Decreased Patient Satisfaction
<ul style="list-style-type: none"> Depersonalization/ Callousness 	<ul style="list-style-type: none"> Withdrawal from patient Decreased compassion Decreased listening to patient Increased cynicism and sarcasm Increased risk of patient-on-staff workplace violence
<ul style="list-style-type: none"> Decreased Efficacy <p>Perception of decreased efficacy becomes reality as burnout becomes worse</p>	<ul style="list-style-type: none"> Poor occupational confidence Think making poor decisions Later, actually making poor decisions Cognitive Flexible Memory (CFM) switches to Habit Memory (HM) causes less differential diagnosis and poorer care plan HM: Reflex responses to stimuli—survival mode Cognitive impairments of decreased executive function: Decreased attention, focus, situational awareness, long term perspective, ability to anticipate patient and family needs & other patients on unit

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perceptions others have of us have contributed to the delays in awareness of how stressful and toxic the healthcare work environment has become. As author Dike Drummond MD states: "It's not a fair fight" as a final acknowledgement that in total, the job description has become actually impossible to achieve. He also describes the multiple factors as "death by a thousand paper cuts" as an imagery to try to understand this accumulation effect ⁽³⁾.

The emerging evidence of how clearly burnout affects the healthcare system and the quality and safety of the care provided to our patients now squarely promotes the needed opportunity for collaboration among educators, administrators, quality and safety advocates, patient experience advocates and the healthcare industry. It has become clear that The Triple Aim ⁽⁴⁾ framework of a better quality of care, and enhanced patient experience at a reduced cost is an incomplete view of what needed to occur for sustainability of practice and safety in patient care. Since many decision-makers in healthcare and the support industry to healthcare are non-clinicians, a "perfect storm" occurred 1) externally: over-expectation of demands of healthcare workers and 2) internally: over-expectation of human capabilities by the healthcare workers themselves. Two publications on The Quadruple Aim framework ^(5,6) include the fourth aim – improving the experience of providing care such that the healthcare workforce of physicians, nurses and employees find joy and meaning in their work. This framework addresses the human factors in the delivery of care that are essential to the success of the other three aims of patient experience, cost, and quality of care.

A SPECIFICALLY VULNERABLE POPULATION: PHYSICIANS IN TRAINING

College graduates who are enrolled into medical school have lower burnout and depression ratings than the general population. Two years in medical school, this group has higher burnout and higher depression than general population ⁽⁷⁾. At the beginning of internship before it starts, the incidence of depression is about 3.9%. Three months into internship it becomes over 6 times higher at a rate of 27.1% and stays high throughout internship ⁽⁸⁾. Suicidal ideation before internship is at 2.5%, at 3 months becomes 4.0%, at 6 months becomes over four times higher at 11.1% and stays high throughout the rest of into internship ⁽⁹⁾. We also know that acute and chronic depression can affect medical decision making increasing the rates of errors. We need to examine what we are doing to these humans in both the educational experience and early work experience as a physician.

WHAT ARE THE WORK-RELATED STRESSORS THAT CONTRIBUTE TO BURNOUT?

At the extremes, burnout can be viewed either as an internal/individual problem that can be solved by better selection of physicians, mindfulness and yoga practice, and enhancing resilience or as an external/organizational problem in which burnout is equated with abuse and organizations are the main culprit. Evidently, these polarized views are too simplistic. Six categories of work stress have been identified to contribute to burnout ⁽¹⁰⁾:

1. Excessive workload: physical, cognitive, or emotional.
2. Lack of control in being able to influence work environment.
3. Poor balance between effort and reward.
4. Lack of community: or of a culture of mutual appreciation and team work (This gets worse the busier the physician becomes).

5. Lack of fairness in resources distribution.

6. Value conflict: the stress of having to participate in sub-optimal unethical circumstances.

Of note, a denialist view of burnout –that burnout can't be a major problem – is superficially justified by the fact that plenty of people still go to medical school and doctors still show up for work. If physicians for a moment go back to their pre-med experiences and the motivating factors to become a physician, it becomes fairly clear that becoming a physician is a calling and not a series of transactions that may be the focus of the business of medicine. This dissonance needs to be better acknowledged and reduced, but is beyond the scope of this article.

THE IMPACT OF CLINICIAN BURNOUT IS COSTLY

There are multiple dose-related relationships such that the higher the burnout the higher the incidence.

Institutional and patient toll:

- Increased medical errors and malpractice claims.
- Disruptive behavior.
- Reduced empathy for patients, patient satisfaction.
- Reduced patient adherence to treatment regimens.

Financial Toll:

- Reduced in-patient satisfaction scores.
- Major contributor to turnover costs.
- Increased medical claims by employees.
- Major contributor to short-term and long-term disability costs.

Personal Toll:

- Reduced career satisfaction.
- Higher Suicide Rate among physicians (about 400/year).
- Substance abuse.
- Divorce.
- Coronary Heart Disease.
- Depression.

MECHANISMS OF IMPACT, THE CASE FOR BIOLOGICAL PLAUSIBILITY

Physicians are trained to use what they have learned for medical decision making (MDM). The prefrontal cortex (PFC) is the part of the physician's brain that (together with widespread neuronal networks) is responsible for executive function (EF). EF weighs the multiple factors at hand to make the best diagnosis and treatment plan and is a limited resource. EF includes the ability to manage time, attention, switch focus, plan and organize, remember details, curb inappropriate behavior and speech, and integrates past experience (e.g. medical training) and experiences with present needed action to practice medicine of the highest competence. PFC is the most evolved brain region and subserves our highest-order cognitive abilities. Unfortunately, it is also the brain region that is most sensitive to the detrimental effects of stress exposure. Even quite mild acute uncontrollable stress can cause a rapid and dramatic loss of prefrontal cognitive abilities, and more prolonged stress exposure causes architectural changes in prefrontal and amygdala nerve cells. This constant prioritization processing induced by uncoordinated mandates and subsequent diminished attentional resources available then increases "goal shielding" that attempts to help the doctor filter out other factors and get overly narrow in focus. Over-focus on specifically allocated task-relevant processing (for example, making sure all the Meaningful Use in the electronic record are noted as "marked as reviewed" by properly clicking the appropriate buttons), then detract from cognitive flexible memory (CFM) needed in the clinical moment with the patient needed to weigh factors at hand. Habit memory

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(HM) then predominates over CFM that would have been used to examine factors in more accurate diagnosis, more comprehensive and effective care planning, as well as the emotional availability to the patient and family.

Cognitive processing capacity of the human mind is limited by the cognitive load put on these capacities. Intrinsic vs. extraneous vs. germane cognitive load are the factors involved in best decision making. Intrinsic load refers to the inherent difficulty of the mental task. Extraneous load refers to a burden of unnecessary information that uses up cognitive processing. Germane load refers to an organized pattern of thought that helps in efficient learning and mental tasks.

Excessive extraneous cognitive load will deplete EF away from the ability to make good medical decisions (see reference 11 for multiple supporting references).

OUR CURRENT HEALTH ECOSYSTEM

Figure 1 displays the current health care system ecosystems of interacting factors.

- Macro level describes national state industry and regulatory factors.
- Meso level is at the hospital or healthcare system factors.
- Micro level describes individual clinicians with other staff and with patients and their families.
- Exo level describes the individual physician and their fam-

ily in daily life outside of medicine.

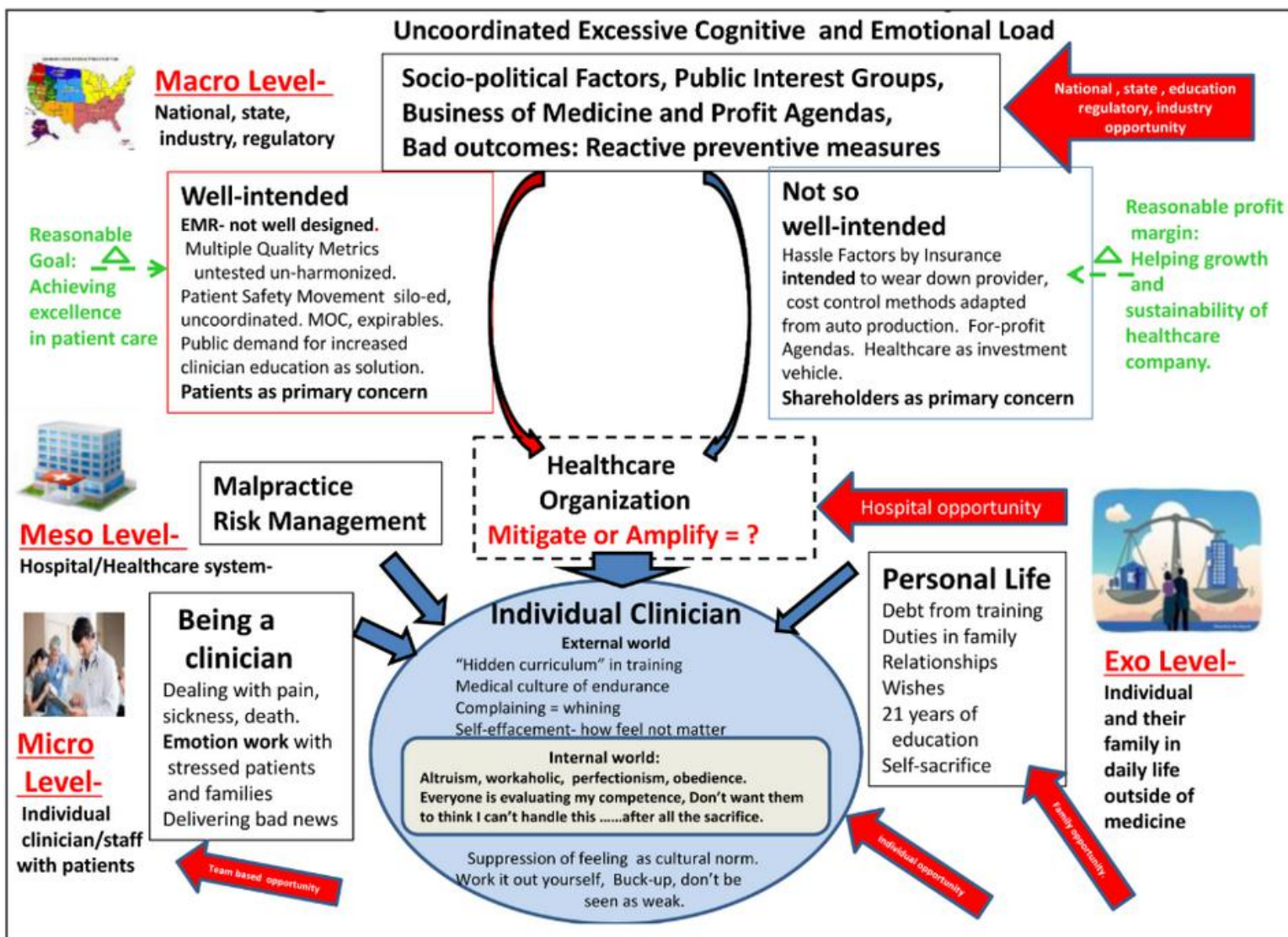
The individual physician is surrounded by an environment that promotes the medical culture of endurance and self-effacement such that how you feel does not matter, and you have to remain professional at all times (as opposed to acknowledging your feelings but choosing your behaviors). Internally, there is a sense of altruism, workaholic, perfectionism, and obedience to authority. There is also the well-known fact that everyone is evaluating their competence around them and they don't want to be seen as 'weak' with so much at stake: all the personal sacrifice, debt, and a family that is depending upon them.

Some factors are well intended for patient care but are not coordinated, harmonized, but these mechanisms are paradoxically making patient care less safe. With the rapid roll out of healthcare reform, and many non-clinicians involved in making the decisions, a 'halo bias' led to the adoption of too many measures that are attempting to quantify quality. Just because someone calls it "quality" it must be good (since the word 'quality' has a halo over it). The tsunami of these measures slipped by sufficient scientific scrutiny. Too numerous chaotic and unproven quality metrics are not good and in fact harmful (12).

Some factors are not well intended, and are actually devised to wear down the physician as a means of cost control, by

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Figure 1



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hassle factors that physicians experience while trying to achieve care for their patients. There really is no justifiable room for the continuance of these wear-down methods by the healthcare business industry given the seriousness consequences of burnout.

Table 2 outlines a number of strategies to be considered to reduce burnout in physicians. The combination of individual and organizational interventions is required to be effective and sustainable ^(13, 14).

CONCLUSIONS

1. Burnout can no longer be ignored among physicians as it can take a toll on both the physicians and their patients.
2. Attention to the fourth aim (experience of providing care) of the Quadruple Aim framework is critical to the success of the other 3 aims of cost quality and patient experience.
3. There are complex factors that can contribute to burnout and its impact is very costly.
4. "Meaningful progress will require collaborative efforts by national bodies healthcare organizations, leaders, and individual physicians as each is responsible for factors that contribute to the problem and must own their part of the solution" ⁽¹⁵⁾.

In the next article, we will review how you can measure burnout, and what the current state of the State is in terms of burnout, its causes, and its consequences. We will also address how we can cope with it, as well as strategies for organizational intervention based on literature and the results of the recent MSSNY survey.

RECOMMENDED READING:

- Noseworthy J, Madara J et al. Physician Burnout Is A Public Health Crisis: A Message To Our Fellow Health Care CEOs Health Affairs Blog March 28, 2017
- Shanafelt TD. Noseworthy J. Executive Leadership and Physician Well-being:
- Nine Organizational Strategies to Promote Engagement and Reduce Burnout Mayo Clin Proc. 2016;nn(n):1-18
- The AMA's Steps Forward program is an excellent source of helping the individual and the organization. <https://www.stepsforward.org/>

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Table 2

INDIVIDUAL

- Encourage recognition of Burnout in the face of Medical Culture and "Hidden Curriculum"
- Physicians start off more resilient than general population: **Individual interventions must be paired with organizational interventions**
- Wellness Seminar series as "safe place"
- Avoid blaming the victim
- Normalize self care
- Normalize boundaries between work and home despite technology
- Multiple individual interventions available
 - Mindfulness
 - Resiliency training
 - Gratefulness
 - 3 Good Things
 - Yoga
 - Coaching
 - Employee Assistance-Wellness Division
 - Self Help websites and literature
 - Peer Support
 - Clinician ombudsman to have work/life balance representation
 - Diet, exercise

ORGANIZATIONAL

- **Overcome the medical culture of endurance where staff must deny stress**
- **Leadership style and concern is key**
- **Establish: Wellness Initiative Strategic Planning Work Group**
- Include **human factor issues** in healthcare delivery
 - **Neuro-cognitive and organizational ergonomics**
 - **The Quadruple Aim Framework:**
 - Costs, Quality, Patient experience, and Fourth Aim: Experience of providing care.
- **Attempt to understand the front line problems:**
 - Anonymous survey to learn key pain points for clinicians, round table discussion of aggregate findings and leadership commitment to action.
- Encourage stronger administrator/physician partnerships
- Use clinician wellness and career satisfaction metrics and tie these into quality of care, reduction of malpractice, errors, and patient satisfaction.
- Block out time and resources to help organize completion of all mandatory regulations
- No reporting of seeking mental health care on licensure, malpractice carrier, credentialing applications or renewals.
- Confidentiality in seeking help