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Duty to Reduce Uncontrollable Stress in Healthcare Workers. Help Is on the Way

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Abstract

Objectives: To advise policy makers, law and administrative practitioners of the new science of physical injury to the brain of healthcare workers (HCWs) due to uncontrollable but not controllable occupational stress. Leaders have the potential and the means to affect the controllability of occupational stress on HCWs. Many resources and guides to do so are in the public domain. Without leadership interventions, the occupational stress remains uncontrollable. OSHA requires employers to provide a workplace free from recognized hazards likely to cause death or serious physical harm. New medical/neurologic findings now raise moral and legal duties for employers to protect healthcare workers from such hazards as uncontrollable occupational stress. **Methods:** Literature focused upon recent studies that outline severe neurological and medical impact from uncontrollable stress is supported by functional MRI studies and SPECT Scans. We reviewed existing policies, causes of uncontrollable stress on HCWs that exist in the current healthcare delivery environment and known interventions that healthcare leadership can perform to reduce uncontrollable stress by its volume reduction and especially allowing more HCW decisional latitude and participation to influence its reduction. We propose legal theories to incorporate these new findings, as seen in international practices. This process described was undertaken by an interprofessional collaboration of physicians, attorneys and healthcare economists resulting in conclusions and recommendations. **Results:** Current HCW work environments are characterized by uncontrollable stress manifested by little ability to escape from or influence mitigation of that stress. Leaders of healthcare

work environments are in the prime position to reduce the factors that create uncontrollable stress conditions, thereby enabling HCWs psychological safety for feedback, opportunity to influence their work environment, express ideas for improvement, as well as allowing more options for choice in fulfilling their duties. HCW's uncontrollable stress conditions in their work environment replicate conditions of brain injury and medical sequelae. Burnout is prevalent, well known to be a significant problem in healthcare and is foreseeable. Findings now approach, and likely meet, criteria for the legal standard of a recognized hazard. There are existing methods of recognition and detectability where the impact of HCWs' uncontrollable stress meets the severity threshold, and there is feasibility of and existing guidance for abatement. Thus, the regulatory and legal risk attached to these issues is currently underappreciated and only likely to increase. National professional organizations recommend interventions in the public domain to reduce burnout and stress. However, healthcare facilities currently view these actions as voluntary. Healthcare workforce leadership have a duty to protect their HCWs and hence their patient constituents from this uncontrollable occupational stress. We must robustly apply organizational methodologies to reduce this stress and improve HCWs health and wellbeing, which ultimately influences patient outcomes. **Conclusions:** We recommend a focus on engagement of adequate resources and processes via healthcare leadership, as well as awareness and involvement to improve such work conditions. Moral, legal, ethical, patient safety and financial duties exist to command the reduction of uncontrollable stress on HCWs. We recommend Hospital and other healthcare General Counsel advise their CEO and senior leadership about this duty to protect their HCWs and their patients from the impact of uncontrollable stress.

Keywords

Burnout, Uncontrollable Stress, Brain Injury, Patient Safety, Legal Duty

1. Introduction: The Situation

The COVID pandemic raised a red flag for HCW burnout as providers labored endlessly for sick individuals; many died alone but for their direct healthcare providers. Even pre-COVID, the healthcare system was facing the crisis of provider burnout. The impending $1 trillion cuts in Medicaid as part of the "One Big Beautiful Bill" will further deepen the crisis, as health systems are forced to scale back resources and hiring. HCWs will be compelled to increase their workload as a result [1].

The terms burnout, occupational stress, job strain, psychiatric sequelae to this stress and uncontrollable stress related neurologic injury are related, have a similar root cause, and are made worse by HCWs' diminished control to influence their work environment. The term may be chosen depending on the context of the study conditions and author focus. The commonly accepted definitions and

contexts are described below.

The World Health Organization defines *burnout* as "a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed" [2]. The National Institute for Occupational Safety and Health defines *occupational stress* as "The harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury" [3]. In occupational health literature, the term "job strain" is often used, which is defined as the combination of high demands and low control at work. Research has found that job strain can precipitate clinical depression in employees [4]. Uncontrollable occupational stress is that work stress from which the employee cannot escape or influence its mitigation [5].

The greater the severity of burnout (an occupational condition), the greater the risk of getting the clinical condition of Major Depressive Episode [6] [7]. Major Depressive Disorder is diagnosed if the person has five of the following nine symptoms, and at least one of the symptoms is either 1) depressed mood most of the day, nearly every day or 2) markedly diminished interest or pleasure; then 3) significant weight loss or gain, 4) insomnia or hypersomnia, 5) psychomotor agitation or retardation, 6) fatigue or loss of energy, 7) feelings of worthlessness or inappropriate guilt, 8) diminished ability to think or concentrate or indecisiveness, and 9) recurrent thoughts of death or suicidal ideation, and symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning [8].

In our current stressful and complex healthcare system, there is a significant risk of HCW burnout with personal health implications occurring due to unsuccessfully managed stress. A national study (n = 40,301 HCW) reports 49.9% met the criteria for burnout. Nurses report the highest burnout rate (56.0%), followed by other clinical staff (54.1%), physicians (47.3%), and non-clinical staff (45.6%) [9]. With multiple additional studies reporting high rates [10] [11], burnout has become not just an occupational risk for HCWs, but a foreseeable result of working in current conditions [12].

Many organizations identify workforce strain only after downstream outcomes become visible, including resignation, productivity decline, patient complaints, or quality-related incidents.

Wellbeing surveys remain important and should be done. In most healthcare systems, surveys are the most available means of determining burnout prevalence in the organization. While this is currently an important step to be taken, it also should be known that there are future improvements needed to be achieved to support early detection, as surveys alone may not fully capture clinicians at the highest risk. Recent evidence on nonresponse bias suggests clinicians who do not respond to wellbeing surveys may have substantially elevated turnover risk, implying that some of the most distressed clinicians may be underrepresented in survey-based assessments [13]. As we continue to evolve in our capabilities to un-

cover work strain, progress is being made with predictive analytics from existing hospital metrics. Advances in predictive analytics now allow organizations to analyze operational indicators such as after-hours EHR use, documentation burden, in-basket messaging volume, work outside work, HCW schedule density in attempts to reduce impact of no-shows or increase utilization but without allocated time to complete the workload, administrative workload, patient complexity, and then be able to identify patterns associated with burnout and then future turnover risk [14] [15]. These indicators may emerge months before downstream outcomes such as resignation become apparent, potentially providing attentive organizations with a larger intervention window before workforce instability escalates. Earlier detection of operational strain may allow organizations to implement corrective actions before severe workforce disruption occurs. The longer operational strain remains unaddressed, the greater the cumulative workforce and economic consequences become [16]. Potential interventions may include workflow redesign, scheduling optimization, inbox coverage support, reduction of administrative burden, documentation support, and staffing adjustments.

1.1. Meaningful Clinical Work Complicated by Unreasonable Expectations and Administrative Burden

The higher the percentage of clinical Full time Equivalent (FTE) a provider has, the greater the chance of having burnout represented by Emotional Exhaustion Linear trend $p < 0.05$, and Depersonalization Linear trend $p < 0.0001$ in a dose related fashion (see **Figure 1**) [17]. This graded dose-response relationship between clinical FTE and burnout strongly supports the cause-and-effect relationship between exposure to the clinical work environment and burnout.

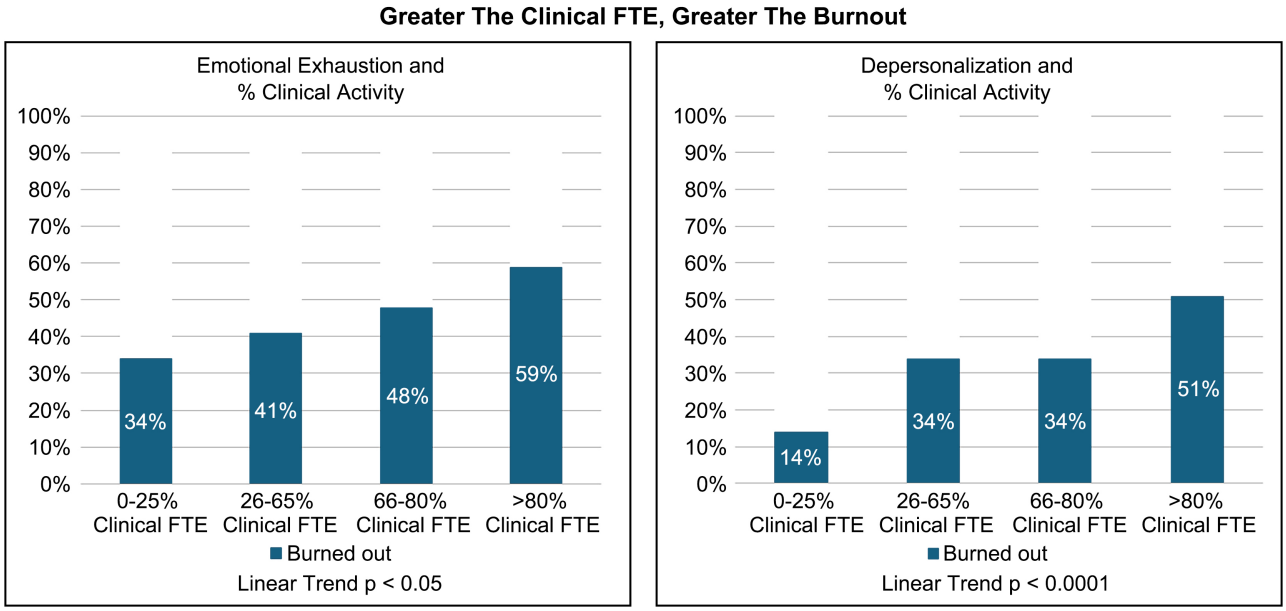

Figure 1. Dose effect of clinical work exposure and burnout. Data display, courtesy of Dr. Michael Privitera. See Anandarajah A *et al.* Am J Med 2018; 131(8) 979-986.

Paradoxically, despite the dose-related effect of clinical FTE and burnout, clinical work also gives the most meaning (see Figure 2). Qualitative results revealed the multiple duress factors are high expectations from systemic and organizational (national, state, industry) mandates, regulations, EMR design, education requirements with insufficient or no allocated time for completion, and difficult workflows conflicting with time for clinical work. There was the perception that leadership was not aware of the duress level from these expectations.

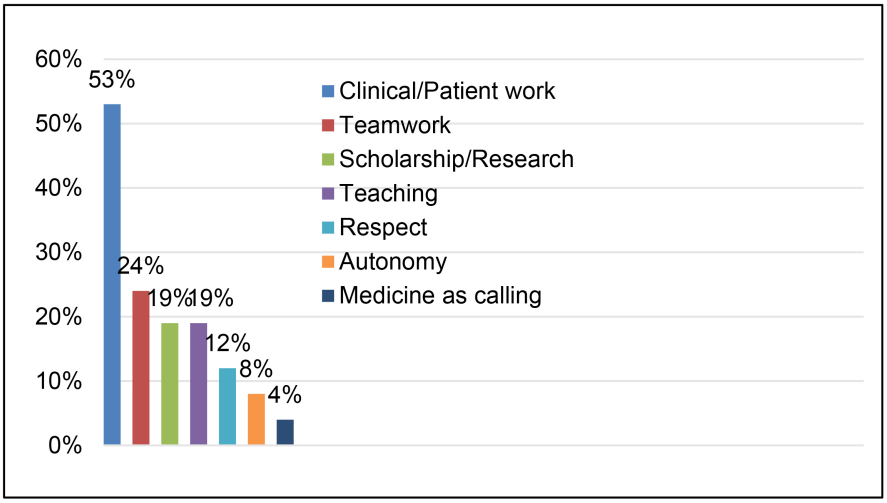

Figure 2. What gives clinicians greatest meaning in their work? The seeming paradox between the two figures: Clinical work, which creates burnout, also gives greatest meaning. Study conclusion of quantitative and qualitative data: Things are in the way of clinicians to be able to accomplish care of patients. Data display, courtesy of Dr. Michael Privitera. See Anandarajah A *et al.* Am J Med 2018; 131(8) 979-986.

Recent studies show that the administrative workload on clinicians can cause harm to both clinicians and patients [18]. Mandates from regulatory or payment sources filter through hospital senior leadership and top executives (C Suite), which result in increasing administrative workload and demands on staff often without leadership awareness of impact. This one-way communication (from leadership to HCWs), without ways for HCWs to provide feedback to leadership about the impact of leadership decisions, results in a leadership blind spot, missing the ever increasing burden of expectations upon HCWs. Although mandates and requirements must be achieved, how they are implemented is where leadership have some latitude. Leadership influences culture and climate; work environment, which is the healing environment for patients; communications; allocation of resources; design of workflows; methods of roll out of services; implementation of requirements; and creation of policy.

Healthcare organizations critically need regular psychologically safe granular feedback communication systems, where HCWs can express their thoughts, opinions and concerns without fear of negative consequences. A growing body of research shows psychological safety is essential in combatting workplace stress [19].

Currently, organization surveys often fail to capture important causes of uncontrolled stress due to non-response bias, which often evidences the group that is most distressed [15].

Healthcare organizations are sociotechnical systems (STS) comprised of people and technology, and using this model has shown improvements in the usual metrics organizations have strived to obtain [20] [21]. STS design for organizational efficiency would include joint optimization of both people and technology, as well as feedback systems to leadership from HCWs and patients who witness (sense) organizational successes and failures [20]-[22]. In healthcare, both patients and clinicians are these sensors of organizational outcomes [22].

1.2. Uncontrollable Stress, Brain Injury and Medical Sequelae

Uncontrollable stress, unlike controllable stress, is associated with brain injury and other medical sequelae [5] [23]-[29]. Uncontrollable stress is that stress from which a person can neither escape nor mitigate. Some brain injury may be reversed after cessation of uncontrollable stress, which calls for urgency in interventions. The earliest studies in this area show cognitive impairment and lack of flexibility of thinking under stress conditions that the human subject could not control, compared to those humans that had influence to control their stress. Later, research looked at anatomical and brain functional changes that occur under conditions of uncontrollable stress. There were strong levels of evidence (randomized controlled trials) in research on animals under conditions of inability to escape from stressors. More recently, these anatomical and functional findings have been shown in humans with strong levels of evidence, under the necessary ethical conditions of case controlled studies. In human studies, the terms often used are uncontrollable occupational stress, or job strain which contains the similar components of high demand and low control in the work environment.

Recent research with use of SPECT (single-photon emission computed tomography) reveals a signature pattern of brain injury caused by uncontrollable stress. When emotional trauma and other stress accumulate, brain SPECT scans often reveal a *diamond pattern* in the brain, reflecting increased activity in the Basal Ganglia, Anterior Cingulate Gyrus (ACG), and parts of the deep limbic system including Thalamus and Amygdala and Prefrontal Cortex [30]-[32]. These signature pattern studies were seen in retrospective case-control studies.

Exposure to chronic uncontrollable stress leads to effects like those caused by hypertension: e.g. endothelial injury, increased wall thickness, vessel resistance, stiffness, arterial atherosclerosis, impairing cerebral blood flow auto-regulation—blood vessel dilatation and contraction in response to brain function needs [28]. This research was a systematic review of the literature and conclusions were primarily from experimental laboratory data and observational studies. The data represented both human and animal research, but the vast majority of the detailed pathological and cellular vascular effects in their conclusions primarily were derived from animal models.

In safety-critical environments, such as healthcare, these neurological and functional impairment effects can be manifested as difficulties multitasking, filtering out distractions, decisions made more automatically rather than pondered with pros and cons, shifting priorities, not maintaining situational awareness—all elevating the risk of human error [33].

1.3. Clinical Careers Currently Embody Uncontrollable Stress Conditions, and Need Leadership Help

Clinical careers currently contain the conditions for uncontrollable stress because HCWs have limited ability to mitigate or escape their stressors. Often, clinicians are logistically trapped in their careers by the length of their education and training years, a strong sense of calling that draws clinicians to the great personal sacrifice their careers require, and high educational sunk costs of time and money often with educational debt over $200,000 [34]. The arbitrary time-limitation of their credentials, intended to prove competence to others required to receive payment for services rendered or as a condition of employment, compound the challenge by placing clinicians' livelihood in recurring jeopardy.

Medical leadership may be unaware of the toxic level of expectations on clinicians since most come from authorities with legitimacy in healthcare (halo bias). Until federal, state, and industry authorities understand and account for the load caused by administrative tasks, only healthcare senior leadership and top executives (C-Suite) can be aware of total demands and apply needed resources. Leadership can control what, when, and how requirements are rolled out. The goal of this manuscript is to help increase awareness with the hope of mitigation of existing work condition hazards described. Research has also shown that leadership behaviors greatly affect the incidence of burnout and risk of medical error [35]-[38].

Work Outside of Work-WOW—the unscheduled and uncompensated work physicians perform using the electronic health record (EHR) after their designated patient hours and on days off [39] is a clear target for leaders to improve HCWs' lives and reduce their unnecessary occupational stress. Because HCWs are often salaried, WOW is not represented in the dashboards of metrics followed by hospital leadership that otherwise would show and count toward their effort of providing patient care. WOW is currently considered by leadership as an unrelated, basically free labor phenomenon, while in fact it is highly relevant to everyday safe operations of the healthcare system. When chronic WOW occurs, time off no longer becomes restorative, which is a significant driver of burnout. WOW then constructs the next day's practice as less safe than if HCW restoration was able to occur. WOW erodes the wellbeing of HCWs, is highly related to turnover [40] and the chronic work-home conflict it creates can lead to twice the risk of burnout and depression, while increasing the risk of HCWs seriously considering separation or divorce [41].

In an AMA study, HCWs report an average working week of 59 hours [42].

Long work hours are a demonstrated risk for adverse health consequences [43]. In a survey of Monroe County New York physicians, 92% completed EMR work outside of scheduled clinical hours as WOW, including weekends for 88.3% respondents. The average doctor spent a minimum of 10.9 hours of WOW per week [44].

The top five contributors to WOW were: 1) Inbox messages from patients expanded EMR time into off hours (66.7%); 2) Inadequate documentation time provided at work (64.5%); 3) Time doing mandatory training for work expanded EMR time into off hours (56.5%); 4) Hospital/Clinic did not track time required to accomplish the work, only tracked patient units seen (51.5%); and 5) Inadequate administrative support to meet the administrative work of practice (42.0%) [44].

1.4. Patient Safety, Clinician Wellbeing, and Leadership's Role

There is an overlap of factors that improve HCW wellbeing and patient safety [45], and there is growing awareness that HCW wellbeing should be integrated with quality improvement efforts [46]. Strategies for systemic intervention through leadership have been shown for patient safety [35] [36] [47] and HCW wellbeing [48] [49]. There is an opportunity to improve HCW wellbeing and patient safety through honing leadership skills and increasing awareness of new moral and legal duties in today's workplace environment. However, leaders currently are not required to relieve burnout and unnecessary occupational stressors.

The Joint Commission, which accredits hospitals, and the American Medical Association jointly reported that despite national societies calls for organizational interventions, hospitals and FQHCs (Federally Qualified Health Centers) have inadequately protected HCWs [50]. Despite HCW burnout being a recognized national crisis, the study revealed a significant gap between acknowledging the problem and establishing the infrastructure necessary to solve it.

The study emphasizes that systemic, long-term improvements in clinician wellbeing were highly unlikely to succeed without the dedicated executive leadership and objective metric tracking to drive and sustain the needed organizational change.

2. Leadership Help Is Critical

2.1. Economic Rationale for Reducing Chronic Uncontrollable Occupational Stress for Long-Term Sustainability of the Healthcare System

Chronic uncontrollable stress for HCWs has long-term implications for the sustainability of the healthcare system. Clinicians who reported experiencing burnout are twice as likely to leave their position than their counterparts [51]. With an already impending shortage of up to 86,000 physicians by 2036 [52], healthcare leaders cannot afford more clinicians leaving their organizations or the industry all together and expect to maintain the same level of patient services. Some clini-

cians cope with uncontrollable stress by reducing their workload via FTE (Full Time Equivalent) reduction. More than 43% of physicians surveyed indicated they were likely to reduce their clinical work hours [53]. Because a single physician on average generates $2.3M net revenue per year [54], even a small FTE reduction among a few physicians at a healthcare organization can lead to millions of lost revenues. For those physicians who maintain their full-time FTE, a study found that physicians who experienced burnout were less productive per year than their peers [15] [43]. These costly outcomes of chronic uncontrollable occupational stress highlight the importance of developing and implementing a mechanism for more regular and timely feedback from frontline HCWs, as opposed to relying on lagging feedback such as infrequent employee surveys or actual HCW departure.

Estimated annual productivity losses associated with burnout in a health system with 1000 physicians and advanced practice providers (APPs) approached approximately $37 million annually [15]. Burnout was also associated with lower patient experience scores (14%). Burned out clinicians were approximately twice as likely to leave their roles [55]. Additional downstream economic consequences include recruitment costs, onboarding delays, staffing instability, patient access limitations, quality-related incidents, and healthcare-associated infections. For example, Cimiotti *et al.* [56] demonstrated associations between nurse burnout and healthcare-associated infections.

Some HCWs who are damaged by the foreseeable risks [57] of unmanageable work conditions may seek legal action. These lawsuits for damages may result in large awards and as a result, get leadership's attention.

2.2. Legal Issues Involved in the Duty to Protect HCWs from Uncontrolled Stress

As understanding of workplace environmental stress has deepened, legal and regulatory scrutiny has grown and the literature advocating corporate responsibility for systemic stress prevention has proliferated, with precedents emerging in Australia, New Zealand, Canada, and the UK [58] [59]. The UK's Health and Safety Executive (HSE), for example, has developed standards specifically to reduce work-related stress. Studies have examined both the policy foundations and practical implementation of these standards [60] [61]. The HSE's indicator tool gathers employees' assessments of demands, controls, supports, relationships, and roles at work, helping organizations identify and mitigate serious stress risks.

Although other countries have moved further in developing standards and interventions to address workplace stress, progress in the United States may take other forms. Legal theories, in particular, may provide an impetus for systemic change. U.S. worker-protection frameworks have traditionally centered on economic and physical harms while discounting psychological or emotional ones as subjective. As a result, actions based on workplace stress remain largely untested. Yet growing evidence of physiologic harm to healthcare workers (HCWs) from chronic, uncontrollable stress renders the problem more congruent with existing

legal mechanisms and may catalyze systemic improvement. Regulatory authorities should heed this evidence and explore both new and existing authority to address these issues.

The Occupational Safety and Health Administration's (OSHA 1971) General Duty Clause is particularly salient. Section 5(a)(1) of the Occupational Safety and Health Act (OSH Act) requires employers to provide a workplace free from recognized hazards likely to cause death or serious physical harm [62]. As medical and neurological evidence demonstrates that severe uncontrollable occupational stress can cause physical injury to the brain, these OSHA frameworks gain new relevance. Chronic, uncontrollable stress in healthcare environments thus falls within OSHA guidance suggesting citation where an employer fails to prevent a recognized hazard. Current OSHA regulations encompass "mental illness" resulting from workplace conditions, but enforcement remains limited: employers must report psychological harm only when employees themselves have done so with corroboration from a treating professional (29 C.F.R. § 1904.5(b)(2)(ix)) [63]. Recognizing that chronic uncontrolled stress extends beyond mental illness into physical injury may open the door to greater regulatory scrutiny, particularly in egregious cases.

Other potential mechanisms also exist. HCWs may bring workers' compensation claims or negligence or intentional tort actions alleging violations of employers' duty to protect. The latter claims face significant barriers as worker's compensation is ordinarily the sole remedy for workplace injury [64] [65], but as the urgency of the problem grows, efforts to assert tort claims may increase and eventually establish precedent. For example, some states allow workers to assert tort claims when employers ignore a known "substantial certainty" that a harm to workers will take place [66]. Uncontrollable HCW workplace stress likewise implicates classic labor concerns over power imbalance and misaligned incentives between HCWs and management. Although some HCWs, especially physicians, were historically excluded from unionization, recent National Labor Relations Board (NLRB) decisions suggest expanding eligibility. As precedents evolve, increased organizing efforts may follow, since these stress-related issues mirror the very conditions that originally gave rise to organized labor.

3. Call to Action and Consequences of Inaction

3.1. The Clear Role for Leadership and Administrative Help

Numerous national organizations, including the National Academy of Medicine, Office of the Surgeon General and National Institute of Occupational Safety and Health, have written reports in the public domain calling the public and healthcare system's attention to the severity of the HCWs' issues along with providing methods for mitigating burnout [46] [67] [68]. The American Medical Association [69] and American Hospital Association [70] have created Leadership playbooks to improve wellbeing and to help guide leaders in this process. These playbooks and papers provide hospital leaders with evidence-informed solutions to reduce HCW

burnout, sustain wellbeing, and build a system where HCWs thrive. Creating a position in hospital Leadership, such as a Chief Wellness Officer (CWO) helps ensure HCWs well-being is central to organizational strategy [71]. Unlike human resources, a CWO specifically combats HCW burnout, works on removing administrative inefficiencies, and advocates for HCW wellbeing at high-level financial and operational meetings. The expertise brought forward by this position comes with knowledge of causes and solutions to improve HCWs wellbeing, while aligning with improvements in operations, finances and patient safety.

3.2. Legal and Regulatory Frameworks for Regulation of Chronic Uncontrollable Occupational Stress

Finally, as awareness of this problem grows, ignorance on the part of leadership becomes a risk in itself. What once could be dismissed as a niche concern or a problem without a solution is now subject to converging evidence and collective pressure. Today's landscape combines increasingly unambiguous research findings, concrete proposals for mitigation, and advocacy efforts. This emerging consensus now spans disciplines—law, organizational and research psychology, clinical mental health and psychiatry, and the experiences of frontline clinicians—joined by advocates and activists who are pressing for change. As these currents converge, we are approaching a point where hospital leadership will no longer be able to remain willfully ignorant. The costs of inaction—legal, regulatory, financial, and reputational—will become harder to deny, and leaders who fail to engage will likely soon find themselves increasingly accountable for neglecting a recognized hazard to HCWs and patients, whether under existing frameworks or new ones that arise as the problem's magnitude becomes undeniable.

Findings of the impact of uncontrollable stress now meet criteria for the legal standard of a recognized hazard by the healthcare industry, and common sense recognition, as covered in public media and well known to patients as well. There are existing methods of detectability through verbal and written surveys. If process improvement questions are added to these surveys, then staff input onto what would improve work conditions to reduce burnout can be obtained as well. The impact meets the severity threshold given the neurologic and medical impact reported here. Improvement efforts are highly feasible, which also can be financially supported by Return on Investment in a range of 3 - 40 in physicians [72], and exists in Nursing literature as well [73]. Practical guidance for abatement of uncontrollable stress on HCWs exists and is free and in the public domain. Some of the resources are mentioned here in this manuscript.

4. Limitations

Although this work curates and interprofessionally synthesized the arguments to encourage health-system leaders and general counsel to treat uncontrollable HCWs stress as a recognized workplace hazard, the evidence came from both animal and human research. However, the stakes are high for negative impact on

clinicians and patients. Quality and sustainability of the healthcare system is at risk if these early signals of hazard are not heeded.

5. Conclusions

Current HCW career structures contain the conditions of uncontrollable stress on HCWs that cause brain injury and other medical sequelae. OSHA regulations require employers to provide a safe workplace for employees "free from recognized hazards". Burnout and risk of psychiatric illness due to uncontrollable occupational stress is foreseeable and national professional organizations have disseminated important interventions in the public domain to reduce HCW burnout.

Healthcare leadership has a duty to protect its HCWs from the known foreseeable hazard of high, chronic, uncontrollable occupational stress. The science of what uncontrollable stress does to the HCWs that care for patients makes clear that the duty to protect HCWs from uncontrollable stress protects clinician well-being, patient health and sustainability of safe and high quality healthcare.

Healthcare General Counsel should advise their CEOs and senior leadership about this duty to protect HCWs from the impact of uncontrollable stress. The organizations could see a healthier workforce and patients while achieving greater profits.

Author Contributions

This manuscript was a product of interprofessional contributions from physicians, attorneys, and healthcare economics professionals.

Michael R. Privitera MD, MS drafted the manuscript and contributed background on medical, neurologic and systemic issues contributing to occupational stress and burnout. Elon Slutsky JD, MS, MA did first draft of legal issues involved, and researched background law. J. Richard Ciccone MD contributed medical forensic experience working with organizations. Tiffany Chan MA and Xi (Sisi) Hu PhD contributed healthcare economic information involved in burnout impact. Elizabeth L.B. Greene JD added legal analysis and arguments from her experience with healthcare law. Catherine Cerulli JD, PhD contributed legal analysis and added experience with the courts in dealing with impact of stress and psychiatric manifestations.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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