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### Healthcare worker burnout: an impending crisis or an opportunity for organizational posttraumatic growth

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**Healthcare worker burnout: an impending crisis or an opportunity for organizational posttraumatic growth.**

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MPH 683 Integrated Learning Experience (ILEX)

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## Abstract

Healthcare Worker Burnout (HCWB) has become a global and national phenomenon. Amplified by the COVID-19 pandemic, and further exacerbated by the healthcare worker shortage, healthcare institutions and policy makers find themselves in a unique position to incorporate creative solutions to address this seemingly monumental issue. The World Health Organization classifies burnout as an occupational phenomenon due to its causes being rooted in the work environment, rather than the individual. Caused by chronic workplace stress, burnout is characterized by mental exhaustion, feeling depleted, having mental distance from the job at hand, feeling negative or cynical as well as experiencing decreased professional efficacy (World Health Organization, 2019, May 28). HCWB will require a multifaceted evidenced based approach to effectively target and modify the diverse root causes leading to its detrimental effects. The COVID-19 pandemic has been traumatic, for many, on an individual, organizational and societal level. The concept of posttraumatic growth, which is defined as the lasting internal positive transformation that occurs in response to a traumatic event, can be extended from the individual to that of the organization and even to society. The COVID-19 pandemic can be viewed as the traumatic event that has the potential to catapult organizations and policy makers into creating lasting structural changes that have a positive impact on all levels of society. This paper will introduce just such an organizational intervention that addresses HCWB on multiple levels. Informed by literature reviews on the topic, current evidenced based interventions, as well as interviews with emergency room nursing staff directly impacted by HCWB.

**Keywords:** burnout, healthcare, impact, safety, wellness, joy at work.

## Introduction

Healthcare worker burnout (HCWB) has reached epidemic proportions worldwide (Leo et al., 2021; Gregory, 2021). The World Health Organization (WHO) has urged countries to protect their health care workforce against the ever-increasing prevalence of burnout among front line staff (Gregory, 2021).

Nationally, the Surgeon General Advisory called attention to the urgency surrounding HCWB and resignation (Office of the Surgeon General, 2022). In this advisory the Surgeon General, Dr. Vivek H. Murthy, highlighted the impact of the COVID-19 pandemic on an already stressed and burnt-out healthcare workforce.

HCWB is characterized by emotional exhaustion, depersonalization, as well as a feeling of low personal accomplishment (AHRQ, 2017, Patel et al., 2018). The Oxford dictionary defines depersonalization as a state in which one's thoughts and feelings seem unreal or not to belong to oneself, or in which one loses all sense of identity.

Before the COVID-19 pandemic, HCWB was as high as 50% in some specialties (Shanafelt et al, 2012; AHRQ, 2017). During the pandemic, HCWB reported as high as 61% (The Hartford Staff, 2022). Thus, although the COVID-19 pandemic significantly impacted HCWB, HCWB is by no means a new phenomenon.

Although HCWB directly impacts patient care in crucial areas such as safety, and significantly contributes to the burden of mental health disease within society, it is not routinely measured, tracked or managed within healthcare and public health infrastructures. Integrating a comprehensive HCWB system within organizations can help curb the full impact of this

impending crisis. Many different professions fall under the term healthcare worker but for consistency and availability of data, this paper will focus on literature from physicians and nurses. The Social Ecological Model will be used as the theoretical framework to describe the problem as well as current evidenced based intervention. Consequently, the background and literature review will be broken up into five categories: individual, interpersonal, organizational, community and public policy.

### **Background and Literature Review**

The term burnout was first introduced in the 1970s by psychoanalyst Freudenberg (De Hert, 2020). It has also become increasingly popular within the literature in the last 10 years, increasing PubMed hits from 311 in the year 2000 to 2 145 in 2019 (De Hert, 2020). Although burnout can occur in any profession, it predominantly affects professions that have direct interaction with people, such as physicians, nurses, social workers, and teachers (De Hert, 2020). Due to their inherent work demand, physicians are more likely than the general population to suffer burnout (De Hert, 2020). Although burnout does have a reimbursement code, referred to as ICD-10 code (Z73.0) , it cannot be used as a primary diagnosis, and up to date, there is no standardized diagnostic procedure associated with it (Jawa, 2017; De Hert, 2020). Currently burnout is classified in 5 stages (De Hert, 2020). Stage 1 is considered the honeymoon stage and associated with a state of enthusiasm. Stage 2 is characterized by the onset of stress and associated with stagnation. Stage 3 is where chronic stress sets in and the emotion associated with this stage is frustration. Stage 4 is where burnout occurs, and the feeling of apathy dominates. Stage 5 is the stage of habitual burnout and is often when individuals seek out

intervention. Physical exhaustion starts during Stage 2 and mental and emotional exhaustion starts between Stage 2 and Stage 3 (De Hert, 2020).

The impact of HCWB is pervasive and impacts every aspect of society: from the individual, their coworkers and family members to the community and society at large. Another important realm influenced by this phenomenon is that of healthcare organizational structure and healthcare policy. Since the literature revealed the root causes of HCWB predominantly stem from the organizational structure, the focus of the proposed intervention will address HCWB within this context (See Fig 1. below). The role of healthcare policy on HCWB will also be reviewed, but the proposed intervention will be implemented on an organizational level.

For the remainder of this paper the term burnout will be referred to in the context of the healthcare workforce and will be abbreviated as Health Care Worker Burnout (HCWB). To set the stage and highlight the stories of the nurses impacted by HCWB, a review of the main themes from these interviews will be discussed prior to reviewing the literature.

## **Nurse Interviews**

Seven Emergency Department (ED) nurses with diverse years of experience were interviewed (See Appendix A. and B.). Five of these nurses worked in the same facility at one point in time and this facility is the primary reference point to their experience with burnout. Appendix A. lists detailed questions and answers from each interviewee and Appendix B. discusses the primary themes and recommendations. Through reviewing the primary themes identified in the interviews, inadequate staffing was most frequently listed as the single biggest predictor of burnout. The second most referenced reason was being unable to take meal breaks or having no break relief over a twelve-hour shift. The third most common contributor was lack of leadership support. The primary complaints centered around leadership included not providing/approving adequate staffing, not being visible or present when staff was in most need/short staffed, as well as staff not feeling heard when they are voicing their concerns to leadership. Other contributing factors discussed in the interviews were secondary trauma, moral injury as well as inadequate training/lack of experience to sufficiently manage the unpredictable nature of the ED. The most frequently listed recommendation besides adequate staffing and getting meal breaks was that of having a debriefer available during each shift. Four of the nurses mentioned desiring to have a peer mentor as a debriefer versus a professional from outside the department. This has been included in the Burnout Prevention and Management (BOPM) protocol that will be discussed in more depth under recommendations.

### **Cause and effect of HCWB**

The root causes as well as the effects of HCWB found in the literature are depicted in Fig 1.

#### ***Root causes of HCWB***

Factors impacting HCWB found within the work environment include lack of time and autonomy, poor relationship with leadership, lack of backing when errors occur, as well as violence in the workplace (Fitzpatrick et al., 2019). In addition to these, De Hert (2020) mentions increased work demands, stressful and inefficient work environment, administrative constraints, troublesome institutional rules as well as limited resources (including staffing) as primary external factors influencing HCWB.

Secondary traumatic stress is another concept identified in the literature strongly associated with HCWB (Kelly, 2020; Orrù et al, 2022; Barleycorn D, 2019). Secondary traumatic stress is defined as “the emotional duress that results when an individual hears about the firsthand trauma experiences of another” (NCTSN, 2018). Within healthcare, providers are constantly being presented with the traumatic experiences of others. Prolonged exposure to secondary trauma can increase the likelihood of burnout as well as symptoms of depression, anxiety and PTSD ((Kelly, 2020; Orrù et al, 2022; Barleycorn D, 2019).

“Moral Injury” is another term that has been strongly associated with healthcare burnout (AHRQ, 2017). The National Institute for Health Care Management (NIHCM) Foundation defines moral injury as, “the challenge of simultaneously knowing what care patients need but being unable to provide it due to a variety of constraints that are beyond their control” (NIHCM, 2021). The NIHCM stated in September 2020 that 75% of healthcare workers reported exhaustion and burnout and that the major cause of moral injury in physicians was completing too many bureaucratic tasks (NIHCM, 2021). Physicians experiencing moral injury and burnout are more likely to quit their jobs, and their patients may have worse health outcomes (NIHCM, 2021).

*Effects of HCWB*

Besides the primary characteristics associated with burnout already mentioned in the paper (emotional exhaustion, depersonalization, as well as a feeling of low personal accomplishment), there are a myriad of other risk factors associated with it. The impact of HCWB on the individual, interpersonal as well as organizational/community level, as depicted in Fig1., will be discussed below.

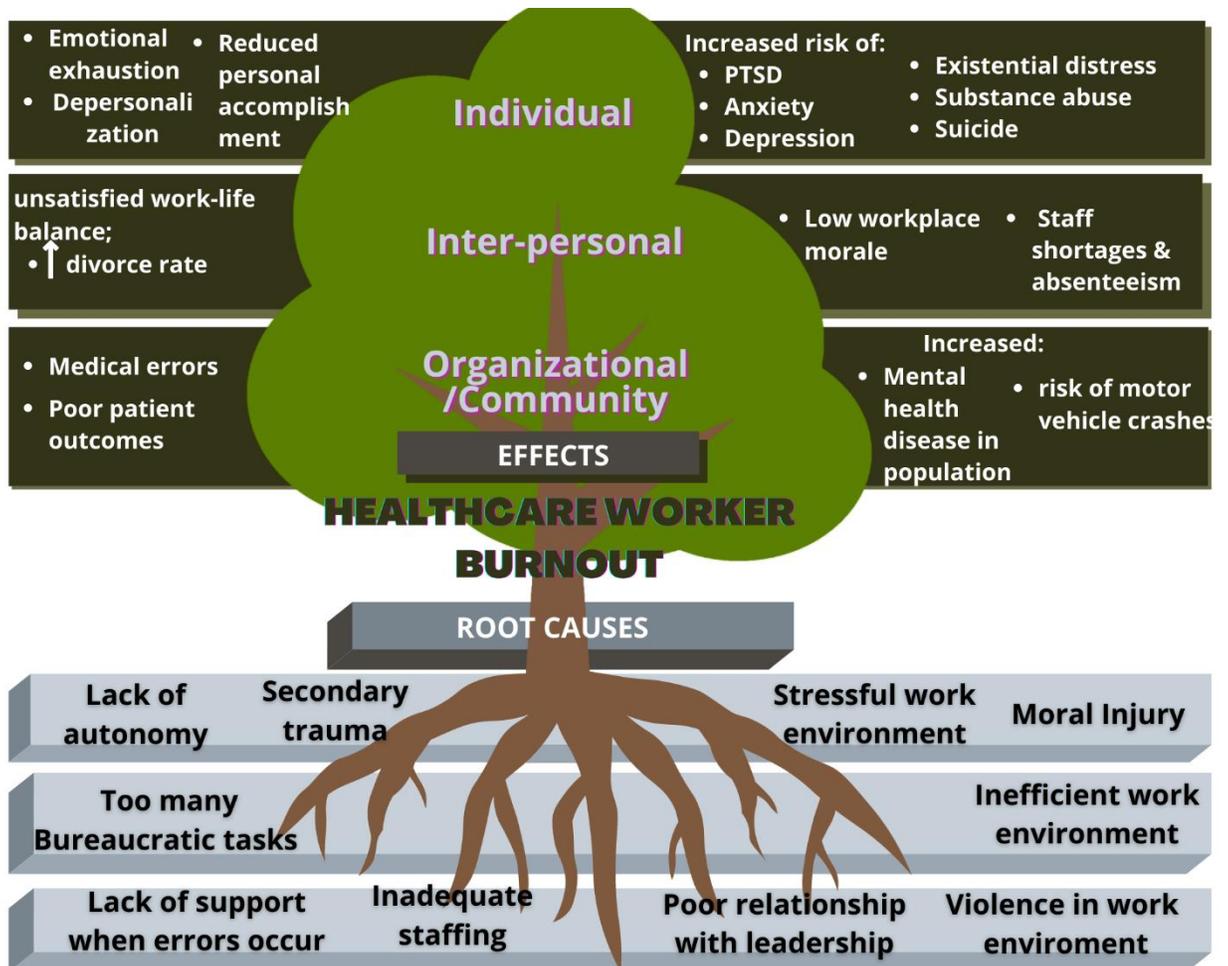


Figure 1: HCWB root causes and effects.

**The impact of HCWB on the individual level**

When addressing the impact and effective intervention addressing HCWB on the individual, it is important to note that the responsibility of prevention and management does not solely lie on the shoulders of the individual. Due to HCWB being an occupational phenomenon, interventions need to be addressed on an organizational, community and policy level to be truly effective and comprehensive. When reviewing the root causes of HCWB depicted in Fig. 1. it is important to note that work environment, leadership and culture are the biggest contributors to the issue.

Although physicians are not inherently more at risk for work-related stress compared to the general population, they do however possess inherent personality traits that perpetuate the issue: compulsiveness, guilt, self-denial, and working in a medical culture that emphasizes perfectionism, denial of personal vulnerability, and delayed gratification (West et al., 2018).

In a study on nurses, certain personality traits were identified as predictive and placed individuals at higher risk for developing burnout syndrome: Neuroticism, negative self-esteem, and negative emotionality (Grigorescu et al, 2018). Protective factors included sociability and positive orientation of extraverts (Grigorescu et al, 2018).

Due to the high exposure to secondary trauma and stressful work environments, specialties who deal more frequently with critically ill patients, such as Intensive Care and Emergency Medicine, have the highest rate of burnout, in both physicians and nurses (Aryankhesal et al., 2019).

In addition, HCWB has been associated with decreased quality patient care as well as increased medical errors (West et al, 2022; de Hert, 2020). Patient safety measures are constantly

measured within healthcare institutions (PSNet, 2019) but the direct impact of HCWB is not routinely assessed and measured. Thus, there is a need to track HCWB within organizations in order to ensure patient safety and improved patient outcomes.

As listed in Fig 1., HCWB has been associated with worsening depressive symptoms, substance abuse, PTSD, anxiety, unsatisfactory work-life balance in providers, and even suicide (West et al., 2022; de Hert, 2020). The need to create awareness of the outcomes associated with HCWB is an important step towards prevention.

### *Interventions effective in addressing HCWB on an individual level*

Mindfulness training is an intervention that has been shown in the literature to be effective in reducing burnout when applied on an individual level for both nurses and physicians (Suleiman-Martos et al, 2020; West et al, 2018). Mindfulness-Based Stress Reduction (MBSR) is an 8-week protocol that teaches mindfulness and stress reduction techniques and has ample evidence-based backing (McFarland & Hlubocky, 2021). In a study by Irving et al. (2019) empirical evidence indicated that MBSR improved outcomes in both physical and mental health of healthcare workers. Thus, incorporating mindfulness practice or programs such as MBSR on both a personal and organizational level can be an effective tool in reducing HCWB.

Meaning-Centered Therapy (MCT), originally developed by Austrian psychoanalyst and holocaust survivor Victor Frankl, is another evidenced based practice intervention that can be applied on the individual level. This therapeutic protocol specifically addresses existential distress, which is a common complaint of individuals suffering burnout (McFarland & Hlubocky, 2021). MCT therapy incorporates therapeutic modalities that “enhances meaning, spiritual well-

being, and quality of life”, and has been proven effective in decreasing distress and improving self-care in clinicians (McFarland & Hlubocky, 2021).

### **The impact of HCWB on the Interpersonal level:**

Work life imbalance has been shown to contribute significantly to HCWB in the literature (Schwartz et al, 2019). The personal needs of healthcare workers are oftentimes put aside for the sake of their work. The impact of work life imbalances found in the literature included marital discord, immune system dysfunction and shortened life expectancy (Schwartz et al, 2019)

Research has indicated that low workplace morale is another significant interpersonal contributor to HCWB. Negative relationships with colleagues, limited training and competency of leadership and excessive workloads are some of the key factors that influence low workplace morale (Turato et al., 2022). In a 2009 CareerBuilder Survey 1 in 5 nurses of the 350 healthcare workers surveyed reported low morale (Enrado, 2009). In addition, positive work morale has been associated with improved patient outcomes and is protective against attrition within healthcare (Sabitova et al., 2020).

### ***Interventions effective in addressing HCWB on an interpersonal level***

To address the work-life imbalance associated with HCWB, organizations can utilize the Work-life climate psychometric scale as an effective way to measure correlation with burnout and patient safety outcomes (Schwartz et al., 2019). The scale assesses specific behaviors within the workday including meal breaks, arriving home late, changing family arrangements because of work, feelings of frustration towards technology and difficulty sleeping (Schwartz et al, 2019).

This assessment can help inform organizations regarding department trends and formulate specific interventions to address the identified needs (Schwartz et al., 2019). In addition, team-based models have been associated with improved clinician and patient satisfaction (Chang et al., 2019).

### **The impact of HCWB on the Organizational level:**

Quality indicators such as patient satisfaction scores and workplace efficiency decreases with an increase in HCWB (West et al., 2022). Economic factors that impact organizations include increased clinician turnover and increased cost (West et al, 2022). Nationally the estimated cost related to physician turnover and reduction of clinical care is \$4.6 billion annually (Han et al., 2019). The economic impact of burnout related turnover and reduced clinical hours at an organizational level is estimated at \$7600 per employed physician annually (Han et al., 2019). These immense costs related to physician burnout are discouraging and should not be left unaddressed.

In addition, the higher than usual number of employees leaving their jobs following the height of the COVID-19 pandemic, aptly named the “Great Resignation”, highlighted the impact toxic work environments have on attrition across industries (Sull et al., 2022). In Sull’s article “Why every leader needs to worry about toxic culture”, the top five factors contributing to toxic work environments identified included disrespect, non-inclusivity, unethical, cutthroat, and abusive treatment (Sull et al., 2022).

Within healthcare organizations the specific organizational factors leading to higher rates of burnout included: lack of control over work processes, negative relationship with leadership,

lack of support for staff and role conflict (Fitzpatrick et al., 2019). Thus, work culture is an important factor to consider when addressing HCWB.

Up to one third of nurses leave their positions within the first two years of employment, primarily due to lack of managerial and educational support (Unruh & Zhang, 2014). In addition, nurse turnover increased nationally from below 20% before 2020, to 27.1% in 2022, potentially due to burnout, early retirement and desire to change professions (Nursing Solutions Inc., 2022; Pickle, 2022). The financial impact of nurse attrition is estimated to be \$11, 000- \$90, 000 per nurse and associated costs up to \$8.5 million (Halter et al., 2017)

The correlation between clinician burnout and turnover has been found to be significant (Willard-Grace et al., 2019). The cost of replacing a single physician is estimated to average between \$500 000- \$1, 000, 000. In addition, there a significant reduction of work effort associated with increased burnout (Leo et al., 2021).

### *Interventions effective in addressing HCWB on an organizational level*

As discussed, and listed in Fig 1., most of the root causes of HCWB can be attributed to the work environment and culture. Thus, organizational interventions carry the most weight in prevention and management of HCWB. As compared to individual-based interventions, a meta-analysis revealed that organization-based interventions have a greater impact for a longer period (McFarland et al, 2021). Thus, organizations introducing interventions applicable to multiple levels, be it individual or interpersonal level, is more effective than simply the individuals or small groups seeking out interventions outside of the organizational framework.

From a systematic review on organizationally applied interventions, those most effective in reducing burnout in physicians and nurses included programs that improved communication skills, team based participatory programs, motivation programs such as gratitude and thankfulness events, professional identity development programs, human resource management approaches that incorporated encouragement and motivation, and workplace appreciation (Aryankhesal et al, 2019).

### **Effective Leadership Interventions**

Leadership driven evidenced based interventions proven effective in facilitating a positive work environment and protective against burnout in nursing staff include appropriate staffing, shared governance, visibility, accessibility and receptivity to staff and professional development, such as a clinical ladder program (Fitzpatrick et al., 2019).

### **Current Resources**

Other organizational interventions and measuring tools currently available to address burnout or associated outcomes are listed in Table 1. and Table 2.

Table 1.

*Organizational interventions*

Name of Intervention	Description
Schwartz rounds	<p>Facilitated structured regular debriefing sessions reviewing the social and emotional impact surrounding patient care. Facilitated by a trained Schwartz facilitator. Incorporates a variety of healthcare specialties. Primarily inpatient.</p>
Code Lavender	<p>Code Lavender is a crisis intervention tool created by Cleveland Clinic that provides rapid access to spiritual care and evidenced based therapeutic interventions to any individual affected by a stressful situation in the clinical setting. Utilizes complementary therapies such as Reiki or acupressure.</p> <p>Code lavender team mainly consists of spiritual leaders but also wellness and or employee assistance representatives.</p>

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Sources: The Schwartz Center for Compassionate Healthcare, 2022; Stone, 2018

Regular debriefing as well as readily accessible spiritual care services has been associated with facilitating joy at work (Rock et al, 2022; Fitzpatrick et al, 2019). Schwartz rounds as well as Code Lavender provide a safe environment for addressing and destigmatizing the emotional aspect of the clinical environment. It thus addresses the root causes of secondary trauma, moral injury and stressful work environment and mitigates the potential outcome for existential distress. The Schwartz Center for Compassionate Healthcare also provides a myriad of mental health and well-being resources for healthcare workers that address topics such as moral injury, compassion fatigue. Institution membership is required to utilize the Schwartz rounds as a resource. It is also important to note that Code Lavender has not been proven to prevent burnout but rather acts as a psychological first aid measure (Stone, 2018).

Table 2

*Current measurement tools*

Name of tool	Description
LeapFrog safety grade	Widely used national hospital survey measuring performance measures such as safety, quality, and efficiency. Helps consumers gain an overall idea of the relative safety of individual hospitals. Creates incentive for hospitals to prioritize safety.

Considered the gold standard for assessing burnout. Measures burnout by capturing and measuring the severity of emotional exhaustion, depersonalization, and personal accomplishment. Consists of 22 items that asks participants to describe their feelings on a 7-point scale, ranging from never having those feelings to having those feelings a few times a week. There is a MBI version specifically geared towards healthcare professionals called MBI for medical personnel (MBI-MP).

Maslach Burnout Inventory (MBI)

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Sources: The LeapFrog Group. (n.d.); Poghosyan et al, 2009.

Although LeapFrog measurements do not directly measure burnout, it does review underlying causes and outcomes associated with burnout such as staffing and retention. The LeapFrog scorecard can be used as comparative data in conjunction with the MBI burnout assessment tools to measure and track associated burnout trends and outcomes.

The MBI is also a great way for leadership to assess specific factors within each department that contribute to HCWB as it segments results into its associated elements. Individual MBI results should remain anonymous, and misuse of the tool to reprimand or target individuals is considered unethical (Maslach & Leiter, 2021).

In addition to the above-mentioned interventions and measurement tools, the National Academy of Medicine created a Resource Compendium for Health Care Worker-Well Being (Lewis, 2022). A variety of evidenced based resources are listed for both organizations and individuals (Lewis, 2022). The resources are sorted according to the following categories: organizational commitment, leadership behavior, workplace assessment, policies and practice, workplace efficiency and culture (Lewis, 2022). This is a great evidence-based resource to reference when developing a comprehensive intervention addressing HCWB.

### **The impact of HCWB on the Community:**

The overall increase in mental health problems within the healthcare workforce is adding to the overall burden of disease within society (Office of the Surgeon General, 2022). A variety of mental health conditions have been on the rise in the general population (MHA, 2022). Consequently, if HCWB is not addressed it can further aggravate the mental health within the community. Major depressive disorder (MDD) is currently the leading cause of disability worldwide and 7.6% of the current US workforce is affected by it (World Health Organization, 2012, Birnbaum et al., 2010). Interventions effective in addressing HCWB on a community level are largely lacking within the literature.

### **The impact of HCWB on Policy:**

The U.S Surgeon General, Dr Vivek Murthy, encouraged healthcare institutions in his 2022 advisory, to focus attention on punitive policies that hinder access to mental health and substance abuse services, and to build capacity within organizations to provide high quality mental health service (Office of the Surgeon General, 2022). In addition, he stressed that

organizational policies supportive of destigmatizing mental health and substance abuse within the workforce is an important part of the puzzle (Office of the Surgeon General, 2022).

Currently most large healthcare organizations have Employee Assistance Programs (EAPs) and Wellness programs, but have been reported as chronically underutilized (Agovino, T, 2020). It is important for organizations not to simply have these programs, but to create awareness, encourage utilization and track utilization.

In addition, the U.S. is experiencing a physician shortage (AAMC, 2021). The attrition associated with burnout will further negatively impact an already strained system (Lacy & Chan, 2019). Although not directly addressed in this paper, policy solutions that focus on the physician shortage will continue to be an important topic, not only for minimizing the impact of HCWB, but primarily for improving population health.

The Surgeon General is addressing burnout with the following recommendations: transforming workplace culture to empower healthcare workers and responsiveness to their concerns and needs; eliminate punitive policies for seeking mental health and substance use disorder care; protect the health, safety, and well-being of all health workers. This includes providing a living wage, benefits, legal breaks, adequate staffing, and policies that are supportive of family responsibilities. Other topics highlighted in the Surgeon Generals' address on HCWB included provision of a supportive structure to ensure safety from physical or emotional violence, as well as prevention and elimination of bullying at work. In addition, reduction of administrative burdens to improve productivity with patients, communities, and colleagues; prioritizing social connection and community as a core value of the healthcare system, and lastly investing in public health and our public health workforce (Office of Surgeon General, 2022).

The Biden-Harris Administration is addressing this issue through Federal Grants awarding up to \$103 Million in funding from the American Rescue Plan Funds to reduce burnout and promote mental health and wellness among the health care workforce (ASPA, 2022).

Under the Health Workforce Resiliency Awards, three of the 34 grantees were awarded to institutions in California: Children’s Hospital Los Angeles; Samuel Merritt University Oakland; Touro University in Vallejo.

These programs focus on evidenced-based curriculum within a variety of health profession training environments that focus on reduction of burnout and promotion of resilience. (Health Resources and Services Administration, 2022). Due to the recent creation of these programs, efficacy has not been evaluated up to date.

### *The Quadruple aim and Value Based Healthcare*

The Institute for Healthcare Improvement (IHI) is an international non-profit organization that has worked closely with healthcare institutions to improve health and patient outcomes (IHI, 2022). IHI originally formulated the “triple aim” to improve our current healthcare system. The first aim is to improve the patient experience of care, the second is to improve the health of populations, and the third is reducing the per capita cost of health care (IHI, 2022). A fourth aim has been recently added, that of improving clinician experience (Teisberg et al., 2020). With the addition of this fourth aim, the term “Quadruple Aim” has been coined (Fitzpatrick et al., 2019).

Value Based Healthcare (VBHC) is a model that is systematically being introduced by the Centers of Medicaid and Medicare into all healthcare systems in the US. VBHC aims to

address the problem of increased costs, poor health outcomes and clinician burnout, thus closely aligning with the IHI's aim (NEJM Catalyst, 2017). VBHC creates a financial incentive to improve patient outcomes by systematically changing the reimbursement model from fee for service to improved health outcomes of the patients served (NEJM Catalyst, 2017). Teisberg et al. (2020) mentions that VBHC is more closely aligned with the cause of being a healer, enhances professional behavior and can potentially be protective against HCWB. However, from a systematic literature review from Engen et al. (2022) there seems to be an increase in job demands associated with the transfer to VBHC.

Thus, to achieve the IHI's "quadruple aim" and successfully implement VBHC, clinician burnout needs to be addressed. Regularly reviewing HCWB as a quality measurement and providing evidenced based intervention for healthcare workers is a step in the right direction.

Up to date there are no clear or widespread protocols in which the 4th aim of the IHI's Quadruple aim, of improving clinician experience, is being evaluated or monitored. Ideally, this needs to become standard practice within the framework of Value Based Healthcare. Not incorporating this measurement risks leaving HCWB unaddressed, as the Centers for Medicaid and Medicare continues to convert healthcare from Fee for service to VBHC.

## Methods

CINHAHL and Pubmed databases were used with search criteria such as “healthcare worker” OR “clinician” AND “burnout” OR “wellness” OR “well-being”. As well as “healthcare worker” OR “clinician” AND “secondary trauma” OR “moral injury” OR “joy at work”. Literature searches did not include any publications prior to 2010.

Google scholar was also used using keywords such as “evidenced based individual/interpersonal/organizational/community intervention and healthcare worker burnout”; “Value Based Care Interventions and clinician burnout”; “Healthcare policy and healthcare worker burnout”. The Google scholar search criteria was limited to publication dates set between 2009-2022.

As primary qualitative data, seven nurses were interviewed to ground the results of the literature review as well as aid the formation of the suggested intervention. All the nurses interviewed had a history of working in the Emergency Department (ED). Five of the nurses interviewed are currently working in the ED, one just retired and another recently switched specialties. The years of experience working in the ED ranged from 1 year to 35 years. The interviewees included a newly graduated nurse, a preceptor nurse involved in training new staff, a charge nurse as well as a nurse manager. Two of the nurses were male and five were female.

## Recommendations

This paper proposes the creation of a pilot Burnout Prevention and Management (BOPM) protocol that incorporates evidenced based interventions discussed prior. The protocol will continuously monitor and evaluate the integrated interventions and review specific outcomes. The initial target population will be Emergency Department (ED) nursing staff at a hospital in Stockton California with reported high burnout and attrition rate.

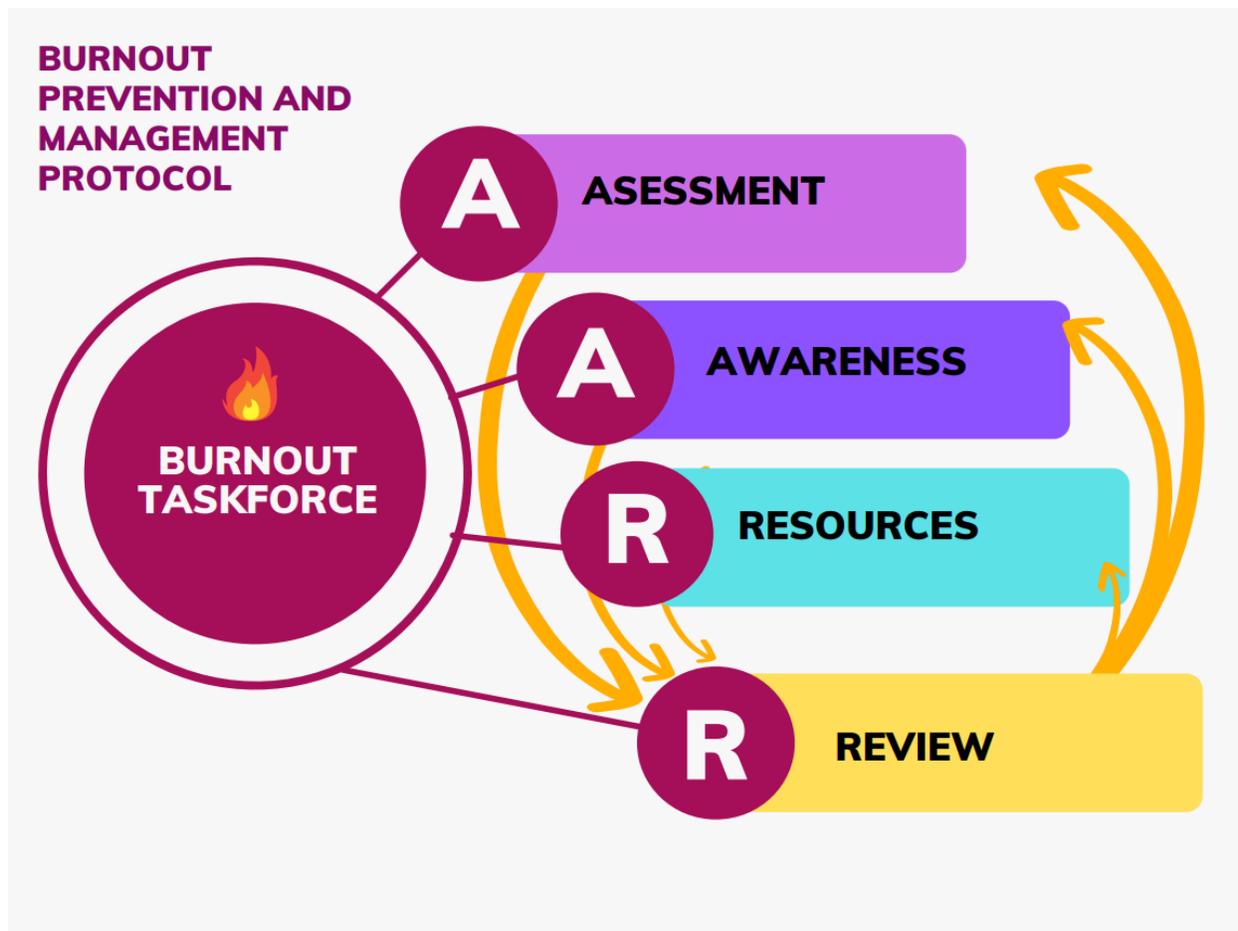
The BOPM protocol will entail the creation of a “burnout task force”, consisting of interested clinical nursing staff, leadership, and education staff. Since one of the BOPM protocols objectives is prevention of mental health disease, there are currently a plethora of funding options available for behavioral health initiatives such as this. The Health Resources & Services Administration (HRSA); the Substance Abuse and Mental Health Services Administration (SAMHSA) and The National Network to Eliminate Disparities in Behavioral Health (NNED) are just a few sources for grant applications (NextGen Healthcare, 2020). As mentioned above under policy, the Health Workforce Resiliency Awards can potentially be another source of funding. Although the goal is to have the BOPM protocol become standardized within all healthcare settings, the initial pilot project will need to be self-funded to provide for proof of concept.

The burnout taskforce (BOTF) members will consist of clinical staff, the department Clinical Nurse Educator (CNE) and or Clinical Nurse Specialist (CNS) , as well the department Managers and will be reporting to the Chief Nurse Executive regarding results and efficacy of the intervention.

The nursing clinical ladder will be utilized to incentivize clinical staff to participate. The clinical ladder is a commonly utilized systematic stepwise career advancement protocol that encourages clinical staff to invest in professional development and expand their expertise within the field of nursing through taking on leadership roles and or joining quality improvement initiatives within their healthcare organization (Coleman, 2019). Utilizing the clinical ladder, nursing staff will be encouraged to participate to receive the pay differential associated with clinical ladder advancement. Although participation will be voluntary, the hours spent participating will not take place during scheduled bedside hours and will be paid.

To avoid going into overtime payment, most organizations schedule nurses to work bedside 36 hours, leaving 4 hours available each week for meetings and required training. Thus, the clinical BOTF members will meet during these available hours, thus avoiding overtime payments.

The creation of the BOTF will fulfill the evidence-based practice of shared governance, which has proven to contribute to joy at work, which is protective against burnout and attrition (Fitzpatrick et al., 2019) The BOTF will be responsible for implementing and continually evaluating the levels of the intervention protocol as depicted in Fig 2.



**Fig 2: Burnout Prevention and Management Protocol (BOPM)**

### **Assessment**

The Burnout Task Force (BOTF) members will utilize the Maslach Burnout Inventory (MBI) to obtain baseline data on the current state of burnout within the department. In addition, they will use it on an ongoing basis to evaluate the effectiveness of the interventions as well as the efficacy of the protocol itself. Thus, changes in the MBI scoring will act as an outcome measure for the intervention. The MBI data will inform the team members of the initial extent of the burnout on their unit, as well as differentiate specific areas requiring intervention. To quote the prolific writer and influential thinker on management, Peter Drucker, “You can’t improve what you don’t measure.”

The individual data will remain anonymous and will only be revealed to the participants themselves, not to leadership. Leadership using the MBI results punitively on an individual level is considered unethical (Maslach & Leiter, 2021). The MBI assessment can be rolled out by a third party or as part of the institution's wellness campaigns, and staff can be given incentive to participate as the budget allows. The MIB assessment will be hitting two of the BOTF targets: assessing the prevalence and severity of burnout in the department, but also creating awareness within each individual of their current personal level of burnout.

The BOTF will also utilize other measurement tools listed under the Resource Compendium for Healthcare worker Well-being created by the National Academy of Medicine as well as the Work-life climate psychometric scale, as experts recommend not using the MBI in isolation (Maslach & Leiter, 2021).

Due to the significant impact leadership has on HCWB, it will be important for the BOTF to work closely with the leadership and implement a leadership survey tool that staff can complete anonymously. Creating anonymous surveys regarding leadership and work culture can be a potential avenue for receiving reliable feedback from clinical staff. Employees are often reluctant in giving honest feedback to leadership due to fear of retaliation or potentially causing conflict. Thus, it is important for the feedback method to be anonymous. Shanafelt and Noseworthy (2017) noted that regular assessment of leadership by those they lead, is an important part of creating a work environment with high engagement and low burnout rates.

## **Awareness**

The BOTF will be responsible for creating awareness throughout their department. Facilitating the creation of infographics that can be put up in department breaks rooms and notice boards. It will be necessary to use the grant funding to obtain a consultant for the creation of infographics if it falls outside of the BOTF members expertise.

In addition, the burnout task force members will create burnout awareness curriculum for all new employee orientations. This can be done in collaboration with the hospital wide clinical education department and be tailored to the specific department by the BOTF Clinical Nurse Educator (CNE) and or Clinical Nurse Specialist (CNS). The CNE and CNS will take the lead in creation of the curriculum since this fall within their scope of practice. The BOTF will also create bite sized educational material on burnout and available resources that can be shared during shift change “huddles” by either BOTF member, charge nurse or nurse manager on shift. This will be a short paragraph with information ranging from signs and symptoms of burnout to data and statistics. Progress of the unit MBI can also be shared during change of shift “huddles” to encourage staff on the departments progress.

## **Resources**

The BOTF will systematically incorporate evidenced based interventions such as Schwartz Rounds and Code Lavender, and review utilization and effectiveness quarterly. Consulting with the existing institutional Wellness Program and Employees Assistance Programs, the BOTF will educate staff about current resources and how to access them. These resources will also be listed in the infographics, as well as incorporated in start-of-shift huddles and team meetings. The BOTF will use grant funding to obtain training in debriefing, initially just for the BOTF members, with the eventual goal of having a trained staff debriefer available each shift. Training can be received from either the Schwartz Center for Compassionate Healthcare, or another accredited organization. The BOTF will continuously be updating themselves and staff on evidence based effective strategies and incorporate them as necessary.

## **Review**

The BOTF will review protocol efficacy and measure data before and after implementation. The collected data will be used by the BOTF to adapt the protocol to improve effectiveness of the interventions as needed as identified by the analysis. Outcome measures to be reviewed will include, but are not limited to MBI results, Work-life climate psychometric scale, LeapFrog safety grade measurements, employee attrition rates, EAP and wellness program utilization as well as results from the anonymous leadership surveys. The data collection and processing can be done by a data analyst consultant or a qualified BOTF member. The results of the data will be discussed at length in team meetings and be formally documented in an annual /bi-annual report to be sent to administrative leadership. The report will include comparative data from before and after intervention initiation, as well as after any protocol adjustment.

According to a literature review of Twigg D et al. (2014), employee involvement in decision making contributes significantly to an improved sense of employee value, increasing likelihood of job satisfaction, company loyalty and decreased likelihood of attrition.

Exit interviews conducted by HR should include the impact burnout had on the individual employee's decision to leave. This should include staff transferring to different departments and not just those leaving the organization. If burnout is identified as causative, follow up questions to gain perspective on the employee's experience, potential contributing factors and how the organization and leadership team can be more proactive going forward. A discussion of the exit interview results can also be included in the BOTF leadership report. The individual interviews will remain anonymous.

This protocol will first be rolled out first within nursing within a specific department, ideally with a high rate of burnout and attrition. Once proven affective it can be rolled out into other high-risk departments within the organization and then eventually into other healthcare specialties.

## Implications and Discussion

The aim of this protocol is to prioritize HCWB as an important safety measure within healthcare organizations. The goal of the BOPM protocol is to decrease HCWB within a specified department through utilizing evidence-based assessment tools and interventions. The protocol is centered around continual monitoring, management, and re-evaluation, ensuring continuous quality improvement. Prioritizing HCWB in a structured and systematic way falls perfectly in line with achieving the fourth aim of the IHI quadruple aim, that of improving clinician experience. There are multiple interventions and programs addressing the first three parameters of the IHI's Quadruple Aim, that of improving the patient experience, improving population health, decreasing healthcare spending, but limited structured programs and interventions that address the fourth of improving the clinician experience. If HCWB is left unaddressed, there will be an increased risk for medical error, increased risk for clinicians developing mental health conditions, adding to the overall burden of mental health disease. Increased medical error and decreased work effort secondary to HCWB will contribute to decreased patient satisfaction and the eventual decrease in population health. All of which can potentially lead to increased healthcare spending. Thus, without ample effort to achieve the fourth aim, the remaining three will remain unachievable.

The BOPM protocol is a structured intervention that can be adopted within different healthcare specialties and departments. It is uniquely structured to address the specific HCWB needs within each department with evidenced based screening tools. This HCWB intervention facilitates joy at work by increasing autonomy using shared governance. It provides the needed resources and support for staff to combat and prevent HCWB and creates an environment that is more collaborative. The BOPM protocol will minimize the impact of secondary trauma and

moral injury and help destigmatize its impact through the integration of frequent debriefing and education surrounding mental health. Through creating a direct line of communication with leadership as well as implementing anonymous leadership surveys, the BOPM protocol has the potential to improve leadership relations with staff, as well as improve work processes and efficiency. The BOPM protocol addresses HCWB in a comprehensive and systematic way. It addresses the root causes identified in the literature and is preventive in nature through facilitating joy at work (De Hert, 2020; Fitzpatrick, 2019; Sikora et al., 2020).

In a systematic review on workplace HCWB interventions, programs that approached the issue from multiple angles with a variety of intervention were more effective than those just focused on a single component (Pieper et al., 2019). The BOPM protocol is such an intervention. In addition, the review concluded that “high quality implementation, including systematic evaluation and ongoing monitoring procedures lead to a higher efficacy.” (Pieper et al., 2019). Thus, it is important to consider the limitations when implementing the protocol.

### **Limitations**

The biggest limitation is that without addressing staffing and adequately providing for meals and breaks, the BOPM protocol will be ineffective. As highlighted in the nurse interviews and literature review, these are foundational causes of HCWB. The BOPM protocol has the potential to create awareness within an organization, but the basic needs of the staff will need to be addressed prior to initiating therapeutic interventions. Not all healthcare environments are equal, and the protocol may not be as easy to implement in all organizations. Some facilities might have a scarcity of financial resources. For the BOPM protocol to be affective the organization will need to have the capacity to address foundational root causes such as adequate staffing and breaks. If the nurses continue working “over-ratio” within the context of the

California law, or not getting their breaks and lunches, the suggestion of self-care practices and burnout prevention might fall on deaf ears, or even sound insulting.

Some other major limitations to implementing the BOPM protocol is leadership buy-in. Without executive and middle management involvement, the protocol will not be successful. In addition, even if financial funding is available, time is a major resource that can be in short supply within healthcare. Although clinical nursing staff have additional hours a week available for continuing education and meetings, salaried employees such as managers, clinical nurse educators and clinical educators may already have full schedules.

From an organizational perspective, healthcare institutions may initially be concerned about implementing a protocol that has no comparative benchmarks. The major question for executive leadership may be, how will this protocol ultimately contribute to the overall economic stability of the organization. Although there is ample evidence in the literature that burnout can lead to mental and physical illness and directly impact organizational productivity and workdays lost (Piper et al., 2019), initially, it will take a certain level of trust to implement a protocol before organizational data comparisons can be drawn. To measure the effectiveness of the intervention, leadership will need to disclose data that may not positively reflect the current state of the organization. In addition, although clinicians may be suffering from burnout and undoubtedly desire a healthier work environment, taking surveys and engaging in a new intervention or protocol can be viewed as additional tasks they may not have the energy for.

The Minnesota Hospital Association (MHA) also created a clinician task force that developed a conceptual framework that included annual surveys and a variety of interventions (Koranne et al., 2022). Findings from their study concluded that: “interventions reducing job demands and strengthening resources such as values alignment, teamwork efficiency, and clinician autonomy are seen as having the greatest potential efficacy” (Koranne et al., 2022). Thus, stressing the importance of addressing root causes related to work load and environment.

### **Public Health impact**

Addressing HCWB through implementing interventions such as the BOMP protocol we will have less healthcare workers suffering from burnout and mental health disease, minimizing the overall burden of mental health disease in the community. Decreasing HCWB will minimize the likelihood of medical errors which would improve the patient experience and in-turn encourage health seeking behaviors associated with trust in healthcare. If fewer healthcare workers are lost to attrition, it will lessen the impact on healthcare expenditure and healthcare inflation. In summary, taking care of healthcare workers will benefit all of society.

## **Conclusion**

From reviewing the literature there are multiple root causes for HCWB, but currently limited comprehensive protocols to address them. Due to HCWB being an organizational phenomenon, it is only logical to implement a protocol within healthcare organizations to prevent, manage and mitigate its effects. There are currently multiple evidence-based interventions effective in managing HCWB, but limited interventions that integrate them. Literature reviews also revealed the efficacy and need for multi-component interventions. This paper recommends the implementation of a comprehensive Burnout Prevention and Management (BOPM) protocol that not only assists in the implementation of multiple evidenced-based interventions, but continually assesses and regulates improvement of the protocol itself. Through decreasing HCWB and improving joy at work, healthcare providers will make fewer medical errors, be less likely to develop mental health conditions, have improved work-life balance and be less likely to leave their jobs. Organizational posttraumatic growth can be achieved as we build systems to ensure a happier and healthier healthcare workforce for the long run.

## **Next Steps**

In addition to organizational intervention such as proposed, policy makers need to be aware of the severity and impact of HCWB and prioritize initiatives that support improved clinician experience. The BOPM protocol does not directly address the root causes of shortages that exist within healthcare and without policy initiatives needed to close the gap, HCWB will remain a societal issue impacting public health. HCWB needs to become one of the standard quality measures being monitored and tracked regularly. Currently national institutions and federal agencies are aware of the severity and impact of HCWB, but there is still no consensus or guideline as to how and when it should be tracked and monitored. In addition, public health

awareness campaigns can be utilized to create more support within the public. As awareness increases in the public, so will responsiveness towards policies that would benefit this very important cause.

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[phenomenon-international-classification-of-diseases](https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases)

## Appendix A:

<b>Role</b>	<b>Department</b>	<b>Burnout (self-reported)</b>	<b>Impact of burnout</b>	<b>Lack of/Self Care routine: current/during burnout</b>	<b>Experience of Moral Injury/Secondary trauma</b>	<b>Team/Organizational support</b>
1. ED RN leader: previous charge nurse, night shift nurse manager	Burnout experience: ED Stockton  Currently working for different hospital system: ED in Modesto.	Yes	Personal: diagnosed with PTSD, anxiety disorder and substance abuse disorder post burnout.  Interpersonal: impacted personal relationships (marriage and time with kids) Organizational: left the organization	During burnout: worked 40hrs overtime, did not take breaks or prioritize health, started going out with colleagues for drinks to de-stress which ended up developing into a substance abuse disorder.  Currently: seeing a counselor regularly, sober, prioritizes exercise & personal Health.	Recalled a story of unable to help a patient in a timely fashion due to lack of resources and patient having a poor outcome.  Experienced moral injury to ask nurses to work more than he knew was good for them to make up for short staffing.	Great team support but lack of organizational support (chronically short staffed).  “I did not receive support from upper management who consistently asked us to flex down when we are adequately staffed and when we were short, did not create enough positions available to replace shortages.”
2. New Graduate Nurse (RN) working in ED about to finish orientation.	ED Stockton	No	On an organizational level: Brief mention and acknowledgment of burnout during orientation. Staff oriented new grads on who to talk to (charge nurse and educator) if they	Separates work from home avoids watching medical shows due to it being “too close to home”, walks more, prioritizes hobbies, family, and plans not to work overtime until she is more experienced.	Forced to place an at-risk patient in the hallway to evacuate a bed for an incoming code. Being unable to wait for cleaning to clean the room before placing a new patient in the room and feeling upset that it was outside her control.	Great team support from coworkers, chronically understaffed (charge nurse is always asking for people to work overtime).

			started feeling burnt out. No mention of Wellness program nor AEP or strategies to avoid burnout.			
3. ED Travel nurse. Previous EMT	Previous employee at ED in Stockton	Yes	Organizationally : left the organization secondary to burnout to do Travel nursing.	Her personal self-care includes: an objective party to talk to after significant events. Gave herself 24hrs after an event where she can cry, yell, and mourn. If she didn't feel better after this time period, would seek additional help. She intermittently saw a counselor trained in first responders. Her self-care routine outside of work includes reading and being outside in nature. Her religion also plays a big role in how she views the world and gains hope in dark times & places.	Presenting to a mass casualty where she had to physically support a mother who had been grossly deformed and screaming uncontrollably due to neurological damage and extreme pain. Hearing the patient scream hysterically in pain without being able to calm her or do anything about her pain at that point in time was distressing.	"The team was amazing but unlike other ED teams I have worked with, everyone is just so exhausted after work, we hardly ever socialized after work."
4. Current ED Nurse (6 years practice); preceptor	ED Stockton	Yes	Realizes the impact it has had on many of his colleagues. Acknowledges	States he drinks a set amount of water prior to the start of shift and then at interval times throughout, and then	Remembers when he saw a child with signs of neglect, notifying CPS, the child getting discharged and later that same child presented	Great team support from coworkers. The direct clinical staff is like family to him. Without them, he would've not

for new grads and new employees.			the work environment has on the high turnover of leadership and staff at the organization. “Sometimes I feel like my wife gets the short end of the stick. When I get home after a long stretch of work, I’m much shorter and more irritable with her and less willing to help in the house, I’m just that exhausted.”	again before going to bed because he realizes will be at risk for dehydration if he does not plan strategically. Advocates this for the new graduates he trains. Does not work as much overtime and prioritizes his family/social life on days off (works 6 days on 6 days off). Also does extreme sports such as mountain biking for stress relief.	with severe non-accidental trauma and arrested and died in the ED. He felt that although he did follow procedure, he still felt like he had let the child down somehow.	been able to have made it this far. Leadership generally does not step in when they are “drowning” and does not seem present with them in the “warzone.” This makes the team feel unsupported and unheard.
5. ED Nurse of +-20 years’ experience in same ED)	ED Stockton	Yes	“I don’t like people; I don’t like going out and tend to stay home when I am not working.” “I can’t talk to my boyfriend for the first 45 minutes of being home and just need to be left alone to process the day.” “Some days I	Self-reports as “being great at self-care”. “I take baths, go for massages and facials. I also see a counselor that specializes in healthcare regularly.”	Yes, recounted specific scenarios where herself and staff underwent a traumatic patient experience that impacted her. Has been diagnosed with PTSD. Reported events where she advocated for additional support after a traumatic patient event stating: “these nurses are not OK. We need to get someone in here to help them process.”	“I don’t feel appreciated or valued at work: after 20 years I received an award from management and felt like a slap in the face. It was given to me in secret so other staff members didn’t feel left out. I felt, wow, it only took you 20 years to acknowledge the work I do.” “The only reason I come back is because of the team”

			just feel like I don't want to go back to that place (ED Stockton), I'm just over it."			
6.Recently retired ED Nurse leader (nurse manager)> 35 years' experience in the ED	ED Sacramento	Yes	"The nice thing about nursing is that when you start feeling burnt out you can change your environment or specialty. That's what I did, and it was very effective."	His observation of burnout in his colleagues/staff correlated with their hours worked ("A 40 hr. employee would burn out more quickly than a 24hr employee etc."). Also, staff that had more responsibility at home ("the single mom of small children would burn out quicker than the single guy without additional responsibility who would be able to go home and recover." Level of experience was also considered a correlating factor: "The less experienced nurse would feel more overwhelmed and less adequately prepared when going out of ratio or if an unpredictable case load were to walk through the door."	Believes secondary trauma and moral injury plays a role but to a lesser extent.	Overstaffing an emergency room is preferable to under staffing. As leadership at his most recent facility, they consistently overstaffed, due to the unpredictable nature of the ED and the high risks associated with understaffing. "Leadership support in making their employees consistently feel appreciated and valued goes a long way. "

7. Psychiatric Nurse Practitioner, previous ED Nurse	ED Berkley area	Yes	Personal: changed specialty area secondary to burnout, reported mental exhaustion and cynicism.	Unable to take breaks and lunches when needed. Feeling bombarded and overwhelmed by patient load.	Giving care to patients during the pandemic without adequate PPE was very traumatic. Feeling expendable and concerned about her co-workers that were also considered friends.	Felt like everyone was leaving the department because of burnout and not feeling compensated enough for the intensity of the workload. Not seeing familiar faces was daunting and felt like a bad sign. Feeling unsupported and underappreciated by organization and leadership.
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Questions:

1. During your time as an ED nurse, have you personally ever experienced feeling emotionally exhausted, low on personal accomplishment and or being in a state in which your thoughts and feelings seem unreal or not belonging to yourself?
2. How has this impacted you personally and or professionally?
3. What role has secondary trauma (defined as the trauma experienced from participating or observing the traumatic event of another) or moral injury (defined as knowing what the best thing is to do for a patient and being unable to do so) played in your feelings of burnout.
4. What would you say in your own professional experience is the primary contributor to your burnout/burnout in general?
5. What is your self-care routine/how do you manage the impact of the stressors you experience at work?
6. How do you feel about the role of leadership in nurse burnout?
7. If you had a magic wand, what do you think would be a great intervention to prevent and or manage clinician burnout in your specialty?

Appendix B.

<b>Role</b>	<b>Themes/Quotes</b>	<b>Recommendations.</b>
1. ED RN leader: previous charge nurse, night shift nurse manager	<p>“[Name of organization] sucked the life out of my soul.”</p> <p>“My personal life was eviscerated.”</p> <p>“I’ve never in my life struggled with substance abuse until this experience... “</p>	<p>Suggest that upper leadership support staff by providing adequate staffing where ratios can be maintained, nurses can regularly get their meal breaks &amp; not feel pressured to work overtime.</p> <p>Stresses importance of self-care within</p>

	Comparison drawn with work environment at Stockton ED being a warzone/battlefield without enough reinforcements.	a high stress environment: eating & drinking water whenever possible, exercising on days off, seeing a counselor, utilizing EAP. Suggested regular formal debriefings. Mentioned staff felt unsupported and at higher risk for burnout when leadership did not appear visible.
2. New Graduate Nurse (RN) working in ED about to finish orientation.	“I already know I won’t be getting all my breaks once I’m done with orientation.” “It’s crazy”: in reference to the work environment. “If you can survive here, you can survive anywhere.”	Having someone to talk to, from both the medical and nursing team to help her process particularly difficult case would be helpful. She also plans on not working overtime and will be prioritizing self-care as much as she can when not working.
3. ED Travel nurse. Previous EMT	“Every day working at... is like showing up to a mass casualty.” “You start out swimming, enjoying the ride, then you start treading water and before you know it you are drowning, and this feeling continues every single day back at work and never stops.”	“Doing formal debriefing more regularly would be immensely helpful.” improved staffing that considers the higher acuity patients present at the Stockton facility in specific would have the biggest positive impact in decreasing burnout. Suggested regular debriefing after any or all upsetting/disrupting patient interactions, even if it was not considered a serious or high-risk incident. Having a trained person available on site to help with spiritual or debriefing support would be helpful.
4. Current ED Nurse (6 years practice); regular preceptor for new grads and new employees.	“I always tell people that start working in our department, ‘I hope you brought your snorkel, because if you didn’t, you’ll be sure to drown.’”	Having someone to talk to while on shift, like a designated chaplain or another nurse that is trained in processing secondary trauma.
5. ED Nurse of +-20 years’ experience in same ED)	“The biggest contributor for me is not enough staffing. We never get our breaks, and we are chronically understaffed. If they could fix that, I	Having debriefing resources or experts readily available and consistently utilizing this service will improve

	would feel so much more supported.”	secondary trauma and help the staff feel more supported.
6.Recently retired ED Nurse leader (nurse manager)> 35 years’ experience in the ED	The nature of the ED hasn’t really changed over the last 20 years but many of the staff are newer nurses and do not yet have the confidence to deal with the unpredictable nature of the ED. When I started, you had to work a few years in the Medical Surgical Department or something similar before transferring over to the ED.”	The biggest contributor to happiness at work or nurse burnout is that of organizational support. At the organization he worked most of his career the nurses religiously got their lunches and breaks, and the ED tended to be overstaffed rather than understaffed. Due to the union, they cannot force people to go home if there is low census but can only ask if anyone is willing to go home, which usually is not hard to find. He’s been able to work at this institution for over 20 years without significant burnout, and retired, not because of burnout, but because he could and felt ready.
7.Psychiatric Nurse Practitioner, previous ED Nurse	“I left bedside nursing because I felt underappreciated and abused.” “Management makes you feel like you are just a number, like you are expendable and can be replaced at any time.”	Policy change is needed, and nurses need to advocate for themselves to protect their patients.

## Appendix C.

**MPH Foundational Competencies**

<b>Foundational Competency</b>	<b>Description of how used for Capstone</b>
<b>Evidence-based Approaches to Public Health</b>	
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	Used Literature review that is required for the course as well as literature from Healthcare Economics paper and Policy analysis paper.
4. Interpret results of data analysis for public health research, policy, and practice	Literature review revealed affective evidenced based practices as well as gaps in what is currently available. Used this data to create a protocol that directly addresses root causes and is structured in re-evaluates efficacy. Current policies were also integrated into Capstone paper.
<b>Planning &amp; Management to Promote Health</b>	
7. Assess population needs, assets and capacities that affect communities' health	Healthcare worker needs where identified within the context of burnout. Current available interventions were identified and the Social Ecologic Model was utilized to discuss the different layers of society affected by healthcare worker burnout as well as the interventions appropriate for each layer (individual, interpersonal, organizational and societal)

9. Design a population-based policy, program, project or intervention	Designed and Burnout Prevention and Management Protocol specifically to address the identified need revealed in the data and literature. Utilized a “person-centered” approach through interviewing healthcare workers directly impacted by burnout.
<b>Communication</b>	
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	Created a written document, and presentation for class review and feedback.

### Health Policy Leadership Concentration Competencies

Competency	Anticipated FW Activity
3. Formulate efficient health policy change recommendations through the analysis of proposed health policy initiatives that could affect health outcomes of vulnerable populations	Anticipating proposing protocol to healthcare organization executive/s as potential solution to address the burnout impacting their employees at present.