

Physician Burnout Quality of Life/ Wellness Resource Pilot Program

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Submitted: 08 Nov 2019; Accepted: 13 Nov 2019; Published: 20 Nov 2019

Abstract

Burnout is a syndrome of emotional exhaustion, depersonalization, and a sense of low personal accomplishment that leads to decreased effectiveness at work [1]. Despite the efforts to combat burnout, the number of U.S. physicians who experience burnout rose from 45 percent to over 50 percent between 2011 and 2014.

The purpose of this quality improvement evidence-based capstone project was to determine whether a physician wellness pilot program could reduce and or eliminate burnout and stress for practicing physicians at an acute care healthcare institution in the Chicago metropolitan area. The capstone project consisted of a pre-intervention survey, an intervention and a post intervention survey. The participants targeted for this evidence-based project were practicing physicians in Illinois that span across all specialty groups.

The physician burnout wellness pilot program was implemented during a two-week period of time during which participants were provided with resources to reduce and or eliminate symptoms of burnout. The implementation of the physician wellness pilot program capstone project showed the physicians at this organization were less stressed and more satisfied with their job at (0.555) percent compared to pre intervention survey results that faired (0.77) and that of the national average of (0.80). Additionally, the post intervention survey results showed the physicians at this organization are experiencing a lower level of burnout (0.44) percent compared to pre intervention survey results that faired (0.53), but a higher level of burnout compared to the national average (0.29).

Physician burnout is an epidemic that requires immediate attention because it not only effects the physicians, but it effects the healthcare system. As such, regardless of the specialty and demographics of the physicians, organizations and physicians alike must do their part in assessing if burnout exists. The findings showed the importance of physicians being able to recognize the warning signs of burnout, encourage them to seek help when they are stressed, and take active steps towards ridding or reducing burnout. The findings were compatible with evidence-based research that supports building physician resilience by way of the development of a wellness program.

There is an alarmingly high prevalence of burnout amongst the working class in the United States. Strikingly it is even greater for physicians, particularly the front-line practitioner's family medicine, general internal medicine and emergency medicine [2]. However, in recent years, the effect of burnout became even more evident when the increasing demand for doctors, coupled with the rising rates of physician burnout, threatened many organizations abilities to consistently deliver quality care and maintain a healthy physician workforce [3]. Consequently, burnout started to negatively impact health outcomes for both physicians and the patients they serve. Since burnout affects doctors in both individual practices and hospitals across the county, it is now viewed as a nationwide problem [4].

According to West, Dyrbye, Liselotte & Shanafelt, rates of burnout symptoms associated with adverse effects on patients, the healthcare workforce, costs, and physician health exceed 50% in studies of both physicians-in-training and practicing physicians [5]. A survey presented by Medscape Physician Lifestyle in 2015 reported that the rate of burnout has increased by 46 percent, which is double the rate of burnout in 2013 [6]. This data shows that the physician burnout rate is on the rise and has increased significantly with every passing year [6].

Overview

Background

Burnout is described as a state of mental exhaustion caused by one's professional life Freudenberger & Richelson [7]. Burnout is the consequence of high stress combined with high ideals [8]. In the past, burnout was viewed as a descriptive disorder, but since conducting the study, more and more people are seeing this as an issue. In fact, the Centers for Disease Control (CDC) recognizes it as a serious medical condition, as noted in the recently updated International Classification of Diseases manual [9].

According to authors Shanafelt, Sloan, and Habermann, "burnout is the syndrome of emotional exhaustion, depersonalization, and a sense of low personal accomplishment that leads to decreased effectiveness at work" [1]. Halbesleben and Rathert said there is a dichotomy between physician burnout, stress, and the onset of mental health (depression) versus physician wellness, the healthcare systems cannot afford to ignore the consequences of burnout nor can they afford not to act [10].

Healthcare professionals have written many scholarly articles to address burnout, but the burnout numbers for physicians continues to climb. According to American Society of Clinical Oncology (ASCO), the American Medical Association (AMA) have increased their efforts to reducing burnout by adopting various policies over the years specific to burnout reduction [11]. ASCO further states their adoption of these policies also included creating medical schools of the future that promote resilient behavior for future physicians by closing the gaps that exist in medical education for physicians in training all while aiming at improving the health of the nation [12]. In 2015, the Medicare Access and CHIP Reauthorization Act (MACRA) was signed into law and one of the primary purposes of this law was to advance quality measures that would minimize the burden on clinicians [12].

Despite many efforts to reduce burnout, the data shows there is a disconnect between the existence of burnout and that in which burnout affects the physicians, patient care, and health outcomes

[13]. Furthermore, some clinicians who are burned out will make mistakes or deliver substandard care to their patients and may have impaired attention, memory, and executive function that decrease their recall and attention to detail [13]. In a recent article, the authors reported that physicians are more likely to have symptoms of burnout (37.9% vs. 27.8%) and to be dissatisfied with their work-life balance (40.2% vs. 23.2%) ($P < .001$ for both) than many working groups (Shanafelt, Boone, and Tan, (2012). The target population for the proposed pilot project includes physicians of all specialties.

Problem Statement

The problem this capstone project addressed was "how does a physician well-being program improve burnout for physicians in a metropolitan acute care setting in 30 days?"

Purpose Statement

The purpose of this project was to implement a pilot wellness program for physicians to identify warning signs of burnout, decrease burnout, and identify methods to sustain wellness in practicing physicians. The project measured three scenarios, the number of physicians that were experiencing burnout, the number of physicians that reported they were occasionally stressed out and the number of physicians who expressed they were always feeling stressed.

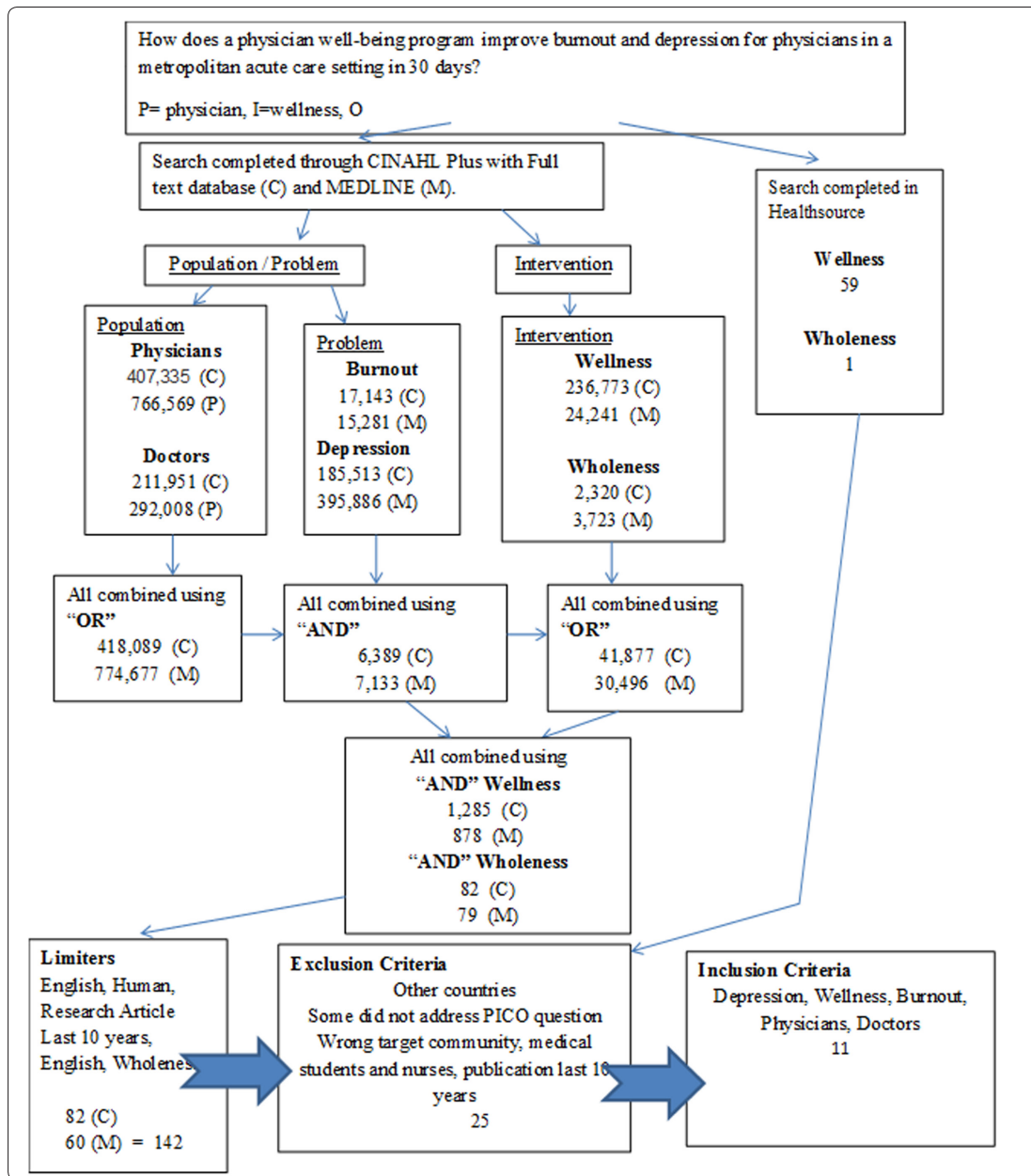
Outcomes

The projected outcome was a significant improvement with the post-intervention scores on the mini z compared to the pre-intervention scores.

Review of the Literature

Three databases (Appendix A) were used to search the terms specific to the PICOT; physicians (doctors), burnout, stress, wellness (wholeness) and quality of life. The search words were tailored to each system using synonyms for each word interchangeably. MEDLINE, Healthsource Nursing and Academic Edition, and CINAHL were the three databases chosen because they were in line with the goals of the project due to their specificity and comprehensiveness.

Appendix A Literature Search Diagram



This initial search yielded 766,569 results for journals and articles combined. Then a second search was conducted combining the population group (physicians and doctors) and the problem group (burnout and depression) yielding 292,008 journals and articles.

The inclusion criteria were specific to physicians in training and practicing physicians from all specialties that targeted quality of life and or wellness outcomes with emphasis placed on articles that used the Maslach Burnout Inventory (MBI) tool that is used to measure burnout. The exclusion criteria were articles that were older than ten years old, articles that did not address the PICOT questions specifically, articles from other countries and if the target community was comprised of nurses and other clinicians. The limiters were very specific to ensure the search yielded articles that were in line with the project. The limiters were as follows: written in English, published between 2010-2018 and full texted research-based summaries.

Using the identified search criteria and the provided screening process, there were a total of 2, 163 articles to consider for full-text review. Application of inclusion and exclusion criteria narrowed the results to 11 studies. To further explore the data, a cross-reference table also known as a reference matrix (Appendix B) was written. The reference matrix was also written to ensure that each article addressed specific components of the PICOT question, how does a physician well-being program improve burnout for physicians in a metropolitan acute care setting in 30 days?

Appendix B
Reference Matrix

PICOT					
How does a physician well-being program improve burnout for physicians in a metropolitan acute care setting in 30 days?					
Citation/Level of Evidence	Participants/Setting/ Sample size	Purpose/ Background	Methods/Design & Limitations	Findings/Summary Strengths/Weakness	Application to own research
<p>Moss, M., Good, V. S., Gozal, D., Kleinpell, R., & Sessler, C. N. (2016). An official critical care society's collaborative statement: Burnout syndrome in critical care health care professionals: A call for action. <i>American Journal of Critical Care</i>, 25(4), 368-376. doi: 10.4037/ajcc2016133</p> <p>Level VII evidence: Report by an expert body</p>	<p>As identified relevant qualitative and quantitative research, books, and editorials concerning Burnout Syndrome (BOS).</p>	<p>The purpose is to provide an overview of the current literature regarding the causes, incidences, diagnosis, and implications of BOS and related medical conditions.</p> <p>To promote the importance of awareness of BOS within the critical care community.</p> <p>To demonstrate to multiple stakeholders their prospective roles in decreasing BOS and the various its harmful consequences to health care professionals and their critically ill patients.</p>	<p>Databases: Cochrane Library and Medline by using PubMed. I also used various search terms in separately or in combination. Such as "burnout syndrome," "critical care," "nursing," stress disorder," "moral distress," "resiliency," and "mindfulness was searched</p> <p>Inclusion criteria: Relevant literature published in the last ten years.</p>	<p>The analysis revealed a need to address BOS concerning the physician's wellbeing, as opposed to negative implications to the patient they serve.</p>	<p>This publication supports my research by providing evidence on the importance of addressing the wellness of physicians with the goal of preventing burnout and the negative consequences of a provider being burned-out.</p>

<p>Panagioti M, Panagopoulou E, Bower P, et al. Controlled Interventions to Reduce Burnout in Physicians A Systematic Review and Meta-analysis. JAMA Intern Med. 2017;177(2):195–205. doi:10.1001/jamainternmed.2016.7674</p> <p>The systematic review of randomized control trials and controlled before and after studies of interventions targeting burnout in physicians. Level I and II.</p>	<p>Meta-analysis of 20 controlled interventions on 1550 physicians and deemed appropriate for inclusion in this review.</p> <p>Job satisfaction and general stress was excluded</p>	<p>To determine interventions and successes for reducing burnout for physicians.</p>	<p>Search Terms: Physicians, burnout and or stress was defined.</p> <p>Nurses were excluded.</p> <p>Inclusion criteria stated included articles in English and published between 2008 and 2018.</p>	<p>20 independent comparisons from 19 studies were included in the meta-analysis. Interventions were associated with small and significant reductions in burnout.</p> <p>The search strategy yielded 2322 articles. Following the removal of duplicates, 1723 articles were retained for title and abstract screening. Of these, 75 were relevant for full-text screening and 19 studies were included in the review.³⁷⁻⁵⁵ One study included a lower percentage of physicians (67%), but we retained it in the analyses to maximize the evidence base.³⁹</p> <p>The most substantial evidence for effectiveness supported organization-directed interventions, but these interventions were rare.</p> <p>More effective models of interventions are needed to mitigate risk for burnout in physicians. Such models could be organization-directed approaches that promote healthy individual-organization relationships.</p>	<p>This article supports my research because it shows that organizational interventions are more valuable and more impactful to the burnout epidemic.</p>
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<p>Gunasingam, N., Burns, K., Edwards, J., Dinh, M., & Walton, M. (2015). Reducing stress and burnout in junior doctors: The impact of debriefing sessions. <i>Postgraduate Medical Journal</i>, 91(1074), 182-187. doi: 10.1136/postgradmedj-2014-132847.</p> <p>Level II evidence: A well done randomized controlled study in a single institution.</p>	<p>31 Post-graduate year one doctors (Interns) in a metropolitan teaching hospital.</p>	<p>To examine the pervasiveness of burnout in a group of junior doctors and the impact of debriefing sessions on burnout.</p>	<p>A randomized controlled study of a cohort of intern doctors in a specific facility.</p> <p>Both qualitative and quantitative analysis methods were utilized.</p>	<p>The study reports that 68% of the participants displayed BOS in at least one of the variables measured.</p> <p>Women had higher rates of BOS than their male counterparts.</p> <p>As indicated, debriefing did not result in significant differences in BOS.</p> <p>However, 89% suggested that they would recommend it due to the support that it provided.</p>	<p>Although debriefing has not been linked to BOS, the fact that it was well received due to benefits in social and emotional support can serve as a basis for future holistic interventions for my study. I believe that taking a holistic approach puts the responsibility for well-being on both the physician and the organization.</p>
<p>Goodman, M. J., & Schorling, J. B. (2012). A mindfulness course decreases burnout and improves well-being among healthcare providers. <i>The International Journal of Psychiatry in Medicine</i>, 43(2), 119-128. doi: 10.2190/PM.43.2.b.</p> <p>Level VI: Observational study.</p>	<p>Pre and post observational study conducted in a university medical facility involving 93 practitioners from different specialties.</p>	<p>Will mindfulness-reduce burnout and improve mental well-being for physicians.</p>	<p>Pre and post observational study in a hospital setting.</p>	<p>Scores in many BOS measures such as emotional exhaustion, depersonalization, and personal accomplishment increased significantly after the intervention.</p> <p>Mental wellbeing increased significantly.</p> <p>The article did not report any changes nor did the study record changes in physical health measures.</p>	<p>The study may be beneficial to provide evidence about sustainability.</p>
<p>West, C. P., Dyrbye, L. N., Erwin, P. J., & Shanafelt, T. D. (2016). Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. <i>The Lancet</i>, 388(10057), 2272-2281. doi: 10.1016/S0140-6736(16)31279-X.</p> <p>Level I and Level II: Meta-analysis and systematic review of physician-only randomized trials and cohorts.</p>	<p>Databases: MEDLINE, Embase, PsycINFO, Scopus, Web of Science, and the Education Resources Information Center</p> <p>Search terms: "burnout."</p> <p>2617 publications identified. 15 were randomized trials that include 716 physicians and 37 cohorts involving 2914 physicians that met inclusion criteria.</p>	<p>To review the current literature on prevention and interventions and reducing the physician burnout rate.</p>	<p>Systematic review and meta-analysis.</p> <p>Inclusion criteria: Studies involving interventions to prevent and reduce physician burnout up to the year 2016.</p> <p>Exclusion criteria: medical students and other non-physicians' providers like nurses or therapist.</p>	<p>There two categories of interventions: Individual-focused And organizational interventions</p>	<p>The various interventions are helpful when assessing and making recommendations.</p>

<p>Olson, K. D. (2017). Physician Burnout – A Leading Indicator of Health System Performance? Mayo Clinic Proceedings, 92(11), pp. 1608-1611.</p> <p>Level VII evidence: Expert opinions and committee reports</p>	<p>Review of empirical studies</p>	<p>To provide information about practices related to BOS and physicians.</p>	<p>Research publications consisted of 15 analysis</p>	<p>Provides factors termed as “R – Factors” that aid in assessing physicians’ response/reactions to burnout</p>	<p>This article will be helpful for me when screening physicians for risk factors associated with BOS (high or low)</p>
<p>Rothenberger, D. A. (2017). Physician Burnout and Well-being: A Systematic Review and Framework for Action. Diseases of Colon and Rectum, 60(6). Pp. 567-576.</p> <p>Level V evidence: Systematic Research Review</p>	<p>Comprehensive Database medical literature review of research publications from the year 2000 – 2016. Databases: MEDLINE</p>	<p>The purpose is to determine the status of physician burnout coupled with the action to propel mitigation and remediation efforts.</p>	<p>Qualitative research and review Database: MEDLINE</p>	<p>There were five sections provided 1) Impact 2) Incidence 3) Causes 4)Interventions 5) Remediation</p>	<p>This article is precious because it provides information to support my argument that to prevent burnout we need to tackle this from various multifaceted approaches (holistic)</p>
<p>Dyrbye, L. N., Satele, D., Sloan, J., & Shanafelt, T. D. (2013). The utility of a Brief Screening Tool to Identify Physicians in Distress. Journal of General Internal Medicine, 28(3), pp. 421-427.</p> <p>Level VI: Cross-sectional Study</p>	<p>A national sample of U.S physicians equaling a total of 6994 candidates</p>	<p>To gauge different facets of distress and to evaluate the ability of a comprehensive screening instrument for burnout.</p>	<p>A cross-sectional study assessing and utilizing the ability of a Physician wellbeing Index (PWBI)</p>	<p>The PWBI delivered scores on the endorsement of the tool by physicians at a high level.</p>	<p>I believe this publication will give add to my research because it is filled with evidence-based information and is a tool that can be used to compare patients (physicians) and gauge programs.</p>
<p>Porter, M., Hagan, H., Klassen, R., Yang, Y. & Seehusen, D. A. (2018). Burnout and Resiliency Among Family Medicine Program Directors. Family Medicine, 50(2), pp. 106-112.</p> <p>Level V: Meta-synthesis</p>	<p>465 medical residency program directors were selected from a total of population of 495.</p>	<p>The purpose was to examine and assess the resiliency of seasoned physicians in a continual stressful environment.</p>	<p>A broader survey revealed two single item measures.</p>	<p>The overall response rate was around 53.7 % with an exhibition of depersonalization (i.e., 15.8%) and emotional exhaustion (i.e., 27.3%).</p>	<p>This article is beneficial because it provides an in-depth focus on stressed physicians which is the core of my project.</p>
<p>Bianchi, R., & Schonfeld, I. S. (2017). Defining Physician Burnout and Differentiating Between Burnout and Depression – I. Mayo Clinic Proceedings, 92(9). pp. 1455.</p> <p>Level VII: Expert committee Report</p>	<p>This research is a culmination of various publications defining BOS and depression specifically for physicians</p>	<p>Depression is a call to action that will hopefully redefine burnout and depressions for physicians and will accurately mediate this epidemic.</p>	<p>Committee reports from multiple areas.</p>	<p>Burnout is related to job stress since it’s the foundation of BOS and depression for physician population across the United States and alike.</p>	<p>I believe this will be helpful to me because it starts the conversation and sets the foundation for physician burnout.</p>

<p>Quenton, J. P., Rigaud, J. P., Prin, S., Barbar, S., Pavon, A., Hamet, M., Jacquot, N., Bletter, B., Herve, C., Charles, P. E., & Moutel, G. (2012). Suffering among caregivers working in critical care can be reduced by an intensive communication strategy on end-of-life practices. <i>Intensive Care Medicine</i>, 38(1), pp. 55-61.</p> <p>Level IV evidence: a Well-designed cohort study.</p>	<p>The intensive communication strategy was targeted at providers working in an ICU (Intensive Care Unit).</p>	<p>An intensive communication strategy that is viable and useful in a clinical setting</p>	<p>MBI (Maslach Burnout Inventory) was utilized as the tool to measure BOS whereas depression was measured by the aid of CES – D (Centre for Epidemiological Studies Depression Scale)</p>	<p>The three constitutes of the MBI (i.e., Personal accomplishments, depersonalization, and emotional exhaustion) revealed a significant difference when compared to each other</p>	<p>This article will give me the evidence-based strategy that I need because it is comprised of justifiable practices and communication strategies in a critical healthcare setting.</p>
<p>Szafran, O., Woloschuk, W., Torti, J. M. I., & Myhre, D. (2017). The well-being of family medicine graduates. <i>Canadian Family Physician</i>, 63(10). pp. e432-e439.</p> <p>Level VI evidence: Single Descriptive Study.</p>	<p>A study sample of 651 medical graduates belongs to the University of Calgary and University of Alberta.</p>	<p>To determine the holistic wellbeing (i.e., personal and professional), levels of stress, general health and stress coping strategies</p>	<p>A retrospective cross-sectional survey encompassing the utilization of a 5-point Likert scale</p>	<p>The response rate from the sampled population was around 47.2 % (i.e., 307) together with a display of high scores for general health and professional wellbeing status (i.e., 72 -76.6%).</p>	<p>Although this article focused on physicians in another country, it still provides useful information and considers the various levels of my study. International studies will be great for a comparison of physicians within and outside of the U.S.</p>

The studies provided an overview of the current literature regarding the causes, incidences, and implications of burnout syndrome (BOS) and related medical conditions. The studies also demonstrated the importance of awareness of BOS within the healthcare community, reviewed the current literature on prevention and interventions to reduce the physician burnout rate and provided information about best practices related to BOS using the evidence-based models. The studies found that 68% of the participants displayed BOS in at least one of the variables while women displayed a higher rate of BOS compared to their male counterparts [14].

Rothenberger, considered the multi-facets of distress that triggers burnout and uses a comprehensive screening instrument to gauge burnout amongst physicians. In doing so the results showed the need to mediate the burnout epidemic. The study also unveiled resources that were viable and useful in an acute clinical setting in a metropolitan community. The study offered holistic wellbeing (personal and professional) coping strategies that can be utilized to enhance the physician’s overall wellness for an enhanced quality of life once the causes of burnout have been addresses.

Causes of Burnout

There are many factors that contribute to the causes of burnout outcomes. A few of these factors are, excessive workload, clerical burden and inefficiency in the practice environment, a loss of control over work, problems with work-life integration, and erosion of meaning in work are all factors [1]. The leading cause of burnout is when there is an imbalance between job demands and prolonged work stress [15]. Essentially physicians enter a positive feedback loop, in which the stress leads to burnout, which leads to a greater amount of stress, which ultimately leads to the crippling effect of burnout. This path toward burnout usually reveals itself by way of

providers feeling physically and emotionally drained both during and after work hours. However, this feeling is not without consequence.

Costs and Consequences of Burnout

There are many costs and consequences associated with burnout. According to Misra-Hebert, Kay and Stoller, the costs and consequences of physician turnover are substantial and may include financial consequences, patient satisfaction scores, and negative perceptions of the practice [16]. According to Sullivan, it is relatively difficult to truly quantify the financial consequences of burnout since there are many variables that contribute to the costs equation. For example, substance abuse, lawsuits, suicide medication errors, depression, and a breakdown in familial relationships are all consequences of burnout yet impossible to truly measure or place a monetary value on them [17].

Although the overall consequence of burnout is difficult to measure because there are direct and indirect costs and the burden of combating burnout is twofold [18]. Both the physicians and the healthcare system have the burden to work as a team to rid burnout with the understanding that burnout can be avoided if the health system is healthy. This team approach will convey a message to physicians and patients that the organizations and the physicians will operate in a manner that is supportive to all stakeholders [19]. Lastly, organizations and physicians alike must be willing to understand burnout and the need for overall quality of life for physicians and take steps towards combatting burnout from a team approach.

Measures to Prevent and or Combat Burnout

Measures should be taken by both the physicians and the organizations to prevent and or combat burnout. The physicians can take active measures to combat burnout by way of maintaining a good work life

balance and learning coping strategies when they are feeling stressed before they reach the point of burnout. For example, Zwack and Schweitzer state physicians should learn the various social, physical and mental resources available to them and it is encouraged to know how to access the various resources long before they need them to combat burnout. Providers should also take time to rest, exercise and eat nutritious meals to recharge and prevent their quality of life from being compromised.

In fact, a recent survey conducted by the American Medical Association stated that 27% of the physicians surveyed indicated that slashing government regulations would help alleviate their burnout [20]. Organizational measures to prevent and or combat burnout should be reflected in the policies and procedures of that organization. Policies should be written in a way that lets the physicians know that utilization of burnout resources will not be punitive, nor will their licensing be threatened. Regulatory bodies, physicians and medical groups must own up to the responsibility of meeting the needs of the physicians' and take steps to help physicians alleviate challenges and support their overall well-being [21].

Authors Paolini, Bertram and Hamilton suggest that staff development that promote quality of life should be a standard business practice and physicians should have immediate access to mental health and emotional wellness resources without fear [22]. The authors went on to suggest that organizations should encourage successful strategies to enlist physician participation using a comprehensive program model that supports both the personal and professional lives of physicians in a longitudinal and holistic way [22].

The program must develop physician leadership and a medical staff culture that can intentionally foster necessary changes in the way that medicine is practiced in the healthcare organizations to which they belong. This action is critical to preventing and combating burnout because the burnout phenomenon may present itself during medical school and may develop or continue to exist in residents and practicing physicians [23]. This concept further supports the proposal that measures should be taken to allow physicians access to burnout prevention resources.

A recent article suggests that health care leaders need to address the problem head on and take the steps necessary to address the problem in a safe manner [3]. Utilization of resources should be free from ridicule from leaders of practicing physician's respected organizations and peers alike, so it does not create a barrier for the physicians and further perpetuating the burnout epidemic.

Maslach Burnout Inventory (MBI) tool, which is according to American Academy of Family Physicians (AAFP) used to measure burnout amongst physicians. MBI is MBI is recognized as one of many tools that have been validated for many years to determine the prevalence of burnout [24]. A study reported 68% of the participants who used the Maslach Burnout Inventory (MBI) tool determined the prevalence of burnout displayed BOS in at least one of the variables measured: depersonalization, personal accomplishments or emotional exhaustion [25]. The study showed the response rate from participants in other countries determined the prevalence of burnout was around 47.2% (pg., 307). However, after holistic interventions were adopted, the scores for the variables measured increased to 72-76.6% in the areas of general health and professional wellbeing status [26]. This bit of information can be viable in an

acute clinical setting because it can help drive the next course of action, can highlight priorities and may highlight an area of weakness if underutilization of a wellness program exists or can serve as cause to adopt a wellness program.

Benefits of a Wellness Program

There are many benefits and strengths to a wellness program. According to the American Academy of Family Physicians, the most substantial evidence for effectiveness was with organizational or systems directed interventions because it showed that mental wellbeing increased significantly because of burnout interventions [24]. While examining the literature review, the analysis revealed a need to address BOS concerning the physician's wellbeing because there is a direct correlation to negative implications for not only the physicians but also the patients they serve [27]. Also, the literature review showed that more effective models of interventions are needed to mitigate risk for burnout in physicians with the goal of improving health outcomes that may have adversely affected the quality of care physicians provide to their patients [28].

There were times that no changes to the physical health measures were reported after an intervention was in place nor did it show that debriefing after an intervention was put in place resulted in a significant difference in BOS (Panagioti et al, 2017). Notably, the findings did show that individual interventions coupled with organizational interventions are more valuable and more impactful to the burnout epidemic. When the two interventions are paired, they are deemed meaningful since they are both individually and systematically focused and they are supported by both the physician and the organization. In an article titled Two Kinds of Interventions Reduce Physician Burnout, the author Christopher Cheney stated that both categories of approaches individually and systematically offer modest benefits at minimum, both approaches are necessary, and addressing physician burnout should be a shared responsibility across healthcare systems, organizations, institutions, and individual physicians.

Additionally, the findings determined that the effective models for combating burnout is a recipe that includes the organization-directed relationship approaches that promote health plus the individual-organization relationships that promote health. The studies further conclude that interventions are to be applied concurrently since it takes two levels of intervention to truly impact the physician's quality of life. One category of intervention is individual-focused, and the other is organizational focused, and both have accountability factors on a continual basis.

Barriers to Utilizing Burnout Resources

Barriers to utilizing burnout resources exists. Time management, attitudes about mental health services and confidentiality are amongst the many barriers that could prevent providers from utilizing burnout resources. For example, because of the stigmas associated with persons receiving mental health services, many doctors simply do not discuss the toll that their profession has on their mental wellbeing [3].

Many practicing physicians fear their licenses may be in jeopardy if it is discovered that they are experiencing burnout and or seeking services [17]. Samano said that because of this fear, the National Academy of Medicine leadership recognized there was a need to talk with state licensing boards to remove the negative consequence (inability to practice) of physicians utilizing mental health services

[29]. The American Medical Association (AMA) calls on state medical boards to not consider a physician has previously diagnosed mental health illness. AMA adds that a previously diagnosed mental health issue is not automatically considered a current impairment to the physician's ability to practice. AMA further states that physicians may be less likely to seek solace if the leaders of the organizations and regulating bodies do not model attitudes that support resiliency and burnout prevention [30].

Physicians who witness their peers being replaced may be reluctant to speak out for fear of losing their jobs [17]. However, every effort should be made to ensure that not only are mental health services available, but they should be recommended. Many physicians may be concerned about confidentiality organizations should make every effort to maintain the confidentiality of the physician's need for treatment in accordance with the privacy laws and Health Insurance Portability and Accountability Act (HIPAA) whose sole purpose is to safeguard the protected health information of individuals.

The literature review showed the extensive ways that burnout effects physicians and it highlighted the magnitude in which burnout impacts the health care system and health outcomes for both the physicians and the patients. The research demonstrated there are various factors that can contribute to an increased risk of burnout if we do not get to the root cause of burnout amongst physicians. The literature review resulted in various levels of evidence that should be considered [31]. For example, of the 11 articles in the reference matrix results, there were three systematic reviews, two were randomized controlled trials, one was a cohort study, three were case reports and two were editorials or expert opinions.

As such, the literature review supports the argument that suggests when using evidence-based models to conduct research; it is essential to understand the various levels of evidence to make the connection and help make informed decisions. The literature also shows why it is important to know and recognize that no level of evidence should be overlooked since all levels contribute to practice and serve as a guide to better understanding the results and outcomes of each study to make informed decisions. The literature further supports a need

to address physician burnout from an individual and organizational standpoint using best practices (evidence-based models) and real-world evidence.

There are many issues that contribute to burnout including time demands, work organization and planning, difficult job situations, prolonged stress and interpersonal relationships and explores this causation to help promote strategies to improve the overall quality of life for the physicians and restore their wellbeing [32]. The outcomes of the literature review raised awareness to the warning signs of burnout for this community (physicians) while affording them an opportunity to be able to identify resources available to them when experiencing burnout to prevent them from going in a downward spiral and leading to the onset of mental health issues.

The problem of physician burnout is largely a system issue and that healthcare organizations have a shared responsibility in addressing the problem [33]. A common theme amongst the researchers was the eagerness in physicians to continue to push themselves even when the risk factors for burnout exists [34]. Cantopher explained, strong people can continue, strive and work beyond their capabilities until eventually they are in crisis. Lastly, the findings promoted a need for a heightened sense of awareness for the secondary stakeholders and it showed the necessity to make coordinated efforts to help physicians to obtain optimal wellness that will impact health outcomes.

Theoretical Framework

The Johns Hopkins Nursing Evidence-Based Practice process (JHNEBP) is the most suitable conceptual framework for a project of this caliber because it takes a systematic approach to addressing the clinical question related to burnout (Figure 1). The JHNEBP framework (Figure 1) is pivotal to practice. The framework gracefully frames the concept in a way that shows the connection of each component. According to Newhouse, Dearholt, Poe, Pugh and White, this approach is broken down into categories, the clinical question, the evidence, real-world evidence (RWE), the evidence-based model (EBM) and the translation of the data that was retrieved from a series of questions [35].

Appendix C

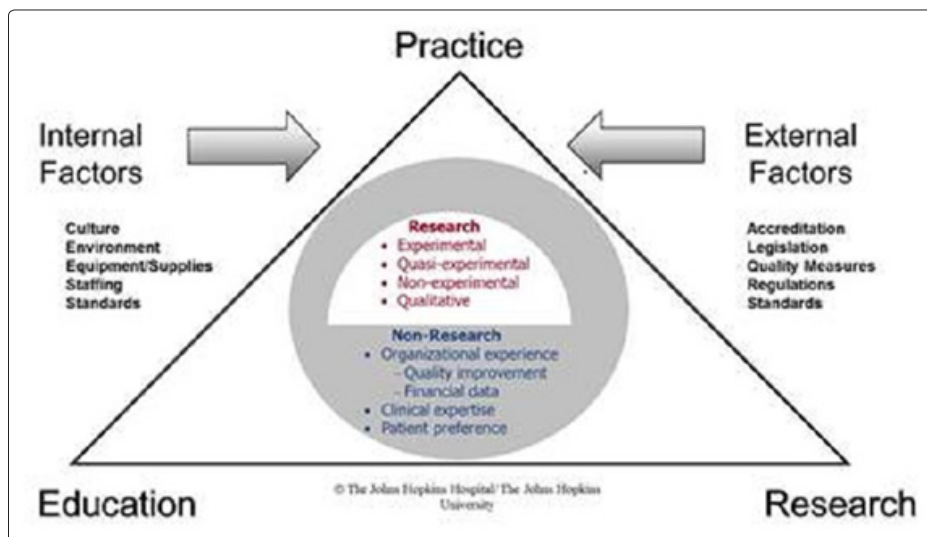


Figure 1

The process used with the JHNEBP model allows researchers and the like to develop and or make transformative changes based solely on the outcomes of the findings from the capstone project. According to Stevens, knowledge transformation is defined as the conversion of research findings from primary research results, through a series of stages and forms to impact on health outcomes by way of evidence-based care [36].

The JHNEBP framework will guide the project by using the problem-solving approach to the clinical decision-making process within a healthcare organization [35]. The framework will be used to integrate the best available scientific evidence with the best available experiential (patient and practitioner) evidence. Specifically, it will be used to help create a library of resources that will be made available to physicians. In doing so, this framework will address the PICOT question, how does a physician well-being program improve burnout for physicians in a metropolitan acute care setting in 30 days? The framework will also be critical to developing a series of questions that are in line with the inclusion criteria.

The EBP framework will consider both the internal and external influences on the practice, which is instrumental to gaining buy-in in support of access, availability and usage of burnout resources from the stakeholders including but not limited to the physicians, the community at large, and the patient population. According to the JHNEBP, the internal influences include the culture, technical and environmental makeup of an organization so much so that most health care organizations' have mission statements that speak to patient care and/or service to the community, and as a practice standard they aim to ensure their missions are being carried out [37].

The evidence shows that physician burnout is directly tied to patient care and patient safety [38]. Moreover, physicians have the increased burden of having to learn and relearn new EMR systems, causing anxiety, increased time spent navigating the EMR, and an increased level of frustration overall so it is imperative that organizations find ways to address physician burnout since it is linked to their mission and values [39]. To address the environmental influences that promote a healthy practice, the Mayo Clinic has pioneered the Listen-Act-Develop model. The Listen-Act-Develop model is an integration of interventions; choice, camaraderie and excellence at the crux of the individual and organization [40].

The external includes include quality measures and practice standards. Institutions can incorporate resiliency trainings and develop strategies that entice physicians to achieve work-life balance that mirrors high level practice standards [41]. For example, when the Accreditation Council of Graduate Medical Education capped the residents work hours to 80 hours a week in hopes of improving burnout from a foundational level however, the medical community was mixed with emotions [42]. A pilot program initiated at Stanford Hospital in California known as "time banking" was adopted to counteract the rising rates of burnout by allowing physicians to bank their unpaid and additional responsibility hours to be used for personal things outside of work [32]. By incorporating programs like this, organizations can demonstrate they are playing a role in addressing burnout at the systemic level [37].

According to a 2018 article published by the Medical Bag, a physician's specialty influences the rate of burnout. The article included a recent survey conducted by the American Medical

Association that stated a physician who specialized in critical care, neurology, family medicine, obstetrics and gynecology, internal medicine, or emergency medicine experienced the highest percentages of burnout ranging between 48% and 45%. The same article went on to say that those specializing in plastic surgery, dermatology, pathology, ophthalmology, or orthopedics experienced the lowest rates of burnout ranging between 34%- 23%.

Organizational Assessment

The organization site for this project was an acute care hospital organization that prides itself on being good stewards of patient care and accountability. The mission, value and vision of this organization shows that it prides itself on being innovative with the goal of meeting the needs of the patients and families, therefore change will be inevitable. As confirmation of their willingness to embrace change, this organization has displayed their readiness for change and meeting the continual needs of their physicians by way of hiring the American Medical Association (AMA) in the early part of this year for consulting services. The consultants at AMA were asked to assess the physicians at this hospital to qualify and quantify their level of burnout and overall well-being. This need for an assessment was in response to an in-house survey that staff was asked to complete to measure their job satisfaction levels, stress and wellness. The findings of the in-house survey suggest that staff, particularly physicians, were highly stressed and may be experiencing some level of burnout; the leadership thought it was best to hire an outside firm that could not only assess the stress and burnout levels of physicians but also analyze the findings and make recommendations to rid or eliminate burnout if applicable.

The AMA survey findings determined that not only were the physicians at this organization burned out, but their level of burnout nearly doubled the national average [43]. In response to the results, this hospital started looking for ways to improve the quality of life for their physicians, to include a possible wellness program with the understanding that doing so would not be without some level of risk.

Historically, there is always a level of risk involved when there is a shift in the dynamics of any organizational change. In fact, power, organizational change, and resistance are closely related concepts [44]. Consequently, since the concept of power involves power over another person, the use of power can easily lead to resistance. However, not all influence attempts result in resistance or even a high level of risk. In change processes, power and influence can lead to compliance and even a commitment to the change efforts. When an organization decides to shift how they conduct business to have a meaningful impact on the quality of care for their physicians and health outcomes, it is based on a need's assessment coupled with buy in from leadership.

Methodology

The capstone project lead implemented a pilot wellness resource program after the Institutional Review Board (IRB) committee approval and conducted a post intervention survey using quantitative data within 30 days of the implementation. The pre-intervention data was derived from previously conducted Mini-Z Burnout survey. The post intervention lunch and learn sessions occurred within a two-week window of the intervention. The purpose of the post intervention lunch and learn sessions was to measure the physician's well-being and to assess if the physicians of this organization were aware of the various resources available to them to prevent and or

reduce burnout. The project lead received written permission from the CHRO to pilot this program prior to the implementation date.

Setting

The project was conducted at a major healthcare system in the Chicago area. The healthcare system provides comprehensive care, education, and research to the people of Illinois and beyond. It is comprised of a clinical enterprise with more than 400 beds, over 20 outpatient clinics (which are federally qualified health centers) and several health science colleges.

This hospital and healthcare system provides healthcare services to a diverse patient population in Chicago. Most of their service areas is concentrated in the west and south side of various communities in Chicago and it is the only comprehensive sickle cell program in the Midwest. This hospital is best known for four areas of specialized care: Sickle Cell, Bariatric Surgery, Transplant Surgery and Neurology & Neurosurgery and are national leaders in clinical care and research.

Sampling

A sampling group was used to conduct this project. Although there are approximately 5,000 employees at this organization, the sampling group for this project targeted only the practicing physicians of an acute care organization in Chicago. This sample group was broken down to reflect approximately 900 physicians of over twenty specialty groups to include: emergency medicine, internal medicine, pediatrics, surgery etc., and over 100 advanced practiced registered nurses (APRN) and nurses who hold a Doctor of Nursing Practice (DNP) degree. The original sample was conducted with the APRN's and the DNP staff but for the sake of this project the APRN's, DNP's and anyone not licensed to practice medicine were excluded. The inclusion participant group consisted of physicians who were employed by this health system and licensed to practice medicine in the State of Illinois.

Measurement Instrument(s)

To measure the outcomes of the physician burnout, the 10 item Zero Burnout Program Survey also known as the Mini-Z survey will be used. The Mini-Z is a survey tool that was developed by a practicing physician. The tool has been used by hospitals and healthcare organizations alike and has the capacity to capture pre-intervention data in a short amount of time [45]. According to the National Academy of Medicine (NAM), this tool not only measures physician burnout, it measures the physician's degree of burnout, their job satisfaction, and the survey tool measures the physician's degree of engagement within their profession based on self-reporting data. There are many published articles and health care providers who have referred to the use of the Mini-Z tool throughout the United States, which can attest to its reputation in the healthcare system [46]. While there may be a variety of tools used to measure burnout, NAM reports, the Mini-Z tool is amongst the group of reliable and valid measuring instruments around and it has been evaluated for reliability and validity through an annual administration process [47].

The Mini-Z was broken down by sections and a number was assigned to each question to quantify the data. Each section consisted of question and answer responses. Some of the sections were yes and no responses and some asked the participants to select a response that most resemble how they felt about the question being asked. For example, the respondents were given answer options on a scale of one

to five (strongly disagree to strongly agree). The answers were based solely on the physician's perception of the question in relationship to their work habits, behaviors and attitude. The responses to the questions and answers were translated into a numeric data form that assess if burnout exists, the level of burnout (if applicable) and job satisfaction levels for this institution. After a physician completes the Mini-Z survey, the results are then scored, and the data is analyzed. As reported by NAM, if a physician's overall score is 2 or less, it is reported that there are no symptoms of burnout present however, a score of 3 or more implies that burnout exists.

The Mini-Z survey offers a clear administration process that is simple and can serve as a quality aid to establishing best practice approaches to assessing and combating physician burnout. Lastly, it is quantitative in nature and will align with the components of the PICOT question, how does a physician well-being program improve burnout for physicians in a metropolitan acute care setting in 30 days? The project lead received written permission from the developer to use the Mini-Z survey for this project.

Data Collection Procedures

There are various procedures and steps involved in collecting data. The steps were defined in three parts, pre-intervention data, intervention and post intervention data. The data was analyzed by using the t-test to see if there was a difference between the pre-intervention scores (control group) and the post intervention scores (treatment group). The t-test was ideal for the project since the scores derived from an analysis of this caliber are deemed valid. Furthermore, the t-test only requires one value from each subject and the results can help to establish resources to prevent or eliminate burnout with the overarching goal of improving the quality of life for physicians.

Pre-Intervention

The pre-intervention data was collected to conduct this study. The data was collected between January and March of 2018 from the CHRO and the CMO at the selected organization. The organization partnered with the American Medical Association to collect the pre-intervention information from their physicians using the Mini-Z Survey as the data collection instrument. Its purpose was to determine if burnout exists in the organization and to establish a burnout baseline if applicable.

The Mini-Z survey was distributed to approximately 1,000 physicians across all specialty areas of this acute care hospital in the metropolitan area of Chicago using an on-line platform. To protect the identity of the survey participants and to prevent duplicate responses, each survey and responses were labeled with a random computer-generated unique identifier before the survey was sent via email to the respondents. Participants were told that the information they provided would help determine ways to modify working conditions within their organization for the benefit of the participants and their patients and they were thanked in advance for taking the survey (Appendix C). After the survey was completed, a representative from AMA to gauge the response rate and the rate of burnout (if applicable) translated the results. Next, the results of the survey were shared with the CHRO and the CMO at the selected organization. The AMA representative, the CHRO and the CMO reviewed each variables of the burnout survey and then compared the results to the national benchmarks.

Z Zero Burnout Program

Zero Burnout Program Survey for Clinicians

CONFIDENTIAL

A unique identification number will be created for you that will be kept confidential!

ID # _____

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INTRODUCTION:

This survey includes questions about your work life. The information you provide will help us determine ways to modify work conditions for the benefit of you and your patients. Thank you for participating!

Section A.

1. In the grid below, please estimate the **AVERAGE** time *allocated* to you and amount of time you *feel would be needed* to provide high quality care for your patients.

Visit Type	Time allocated	Time needed
a. Complete physical/consultation	_____ min.	_____ min.
b. Routine follow-up.....	_____ min.	_____ min.
OR A typical procedure (specify _____) in your area	_____ min.	_____ min.

2. During a typical week about how many hours do you spend:

	Hours per week
a. In the office seeing patients?	_____
b. In the hospital seeing patients?	_____
c. On other patient-related activities (e.g., phone calls, forms, EMR)?	_____
d. On teaching or research?	_____
e. On other work-related activities (e.g., administration)?	_____
Total work hours	_____

3. Overall, do you consider yourself to work: Full time Part-time

4. During a typical month, how many days are you on-call? _____

5. Please estimate the percentage of your patients in each of these categories:	
a. Female _____%	e. Have complex or numerous medical problems _____%
b. Elderly (over 65) _____%	f. Have complex or numerous psycho-social problems _____%
c. Speak little or no English _____%	g. Are generally frustrating to deal with _____%
d. Suffer from chronic pain _____%	h. Have alcohol or other substance abuse disorders _____%

Section B.

1. In your practice setting, how much access do you have to...?	Slight or none	Some	Moderate	Great
a. Clinical resources (e.g., supplies and equipment)	1	2	3	4
b. Specialty referrals	1	2	3	4
c. Interpreters	1	2	3	4
d. Tech support	1	2	3	4
e. Social Work	1	2	3	4

2. How much does your practice setting emphasize...?	Slight or none	Some	Moderate	Great
a. Providing care for underserved populations	1	2	3	4
b. Teamwork among clinicians and staff	1	2	3	4
c. Diversity among clinicians and staff	1	2	3	4
d. Professionalism among clinicians and staff	1	2	3	4
e. Balancing professional and personal life	1	2	3	4

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f. Productivity	1	2	3	4
3. In your practice setting, how much control do you have over...?	Slight or none	Some	Moderate	Great
a. Details of your office or daily schedule	1	2	3	4
b. The volume of paperwork and EMR work you have to do	1	2	3	4
c. The hours you work	1	2	3	4
d. Work interruptions (e.g., telephone calls, unscheduled patients)	1	2	3	4
e. The volume of your patient load or panel size	1	2	3	4
f. Workplace issues (e.g., office space, facilities, supplies)	1	2	3	4
g. The pace of your work	1	2	3	4
h. Allotment of additional time for complex patients	1	2	3	4

4. Which number to the right best describes the atmosphere in your office?	Calm		Busy, but reasonable		Hectic, chaotic
	1	2	3	4	5

Section C.

1. Using your own definition of "burnout", please circle one of the numbers to the right:

a. I enjoy my work. I have no symptoms of burnout.	1
b. Occasionally I am under stress, and I don't always have as much energy as I once did, but I don't feel burned out.	2
c. I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion.	3
d. The symptoms of burnout that I'm experiencing won't go away. I think about frustrations at work a lot.	4
e. I feel completely burned out and often wonder if I can go on. I am at the point where I may need to seek help.	5

2. In general, I would say that my health is... (circle one number)	Poor	Fair	Good	Very good	Excellent
	1	2	3	4	5

3. What is the likelihood that you will leave your current practice within TWO YEARS?	None	Slight	Moderate	Likely	Definitely
	1	2	3	4	5

Section D.

The statements below describe the experiences reported to us by physicians in various settings and specialties. Please assess how well each statement describes *your own practice situation*.

1. Circle the number on the right which best describes how much you agree or disagree with each statement.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. I find my current clinical work personally rewarding.	1	2	3	4	5
b. Overall, I am pleased with my work.	1	2	3	4	5
c. Overall, I am satisfied in my current practice.	1	2	3	4	5
d. My current work situation is never frustrating.	1	2	3	4	5
e. My work in this practice has met my expectations.	1	2	3	4	5
f. I feel a great deal of stress because of my job.	1	2	3	4	5
g. Many stressful things happen to me at work.	1	2	3	4	5
h. My job is extremely stressful.	1	2	3	4	5
i. I almost always feel stressed at work.	1	2	3	4	5

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Section E.

1. To what degree do the following statements reflect the conditions in your principal practice site?	Not at all			To a great extent
a. There is widespread agreement about most moral/ethical issues.	1	2	3	4
f. Our administrators obtain and provide us with information that helps us improve the cost effectiveness of our patient care.	1	2	3	4
g. Our compensation plan rewards those who work hard for our group.	1	2	3	4
h. There is an open discussion of clinical failures.	1	2	3	4
i. We emphasize patient satisfaction.	1	2	3	4
j. The quality of each clinician's work is closely monitored.	1	2	3	4
k. Our clinician compensation formula is well understood by our clinicians.	1	2	3	4
l. Our administrative decision-making process is described as consensus building.	1	2	3	4
m. There is an identifiable practice style that we all try to adhere to in our department.	1	2	3	4
n. We have very good methods to assure that our physicians change their practices to include new technologies and research findings.	1	2	3	4
o. The business office and administration are considered to be a very important part of our group practice.	1	2	3	4
p. We rely heavily on electronic information systems to provide cost effective care.	1	2	3	4
q. There is a strong sense of belonging to the group.	1	2	3	4
r. There is rapid change in clinical practice among our clinicians when studies indicate that we can improve quality/reduce costs.	1	2	3	4
s. There is a great deal of organizational loyalty.	1	2	3	4

t. There is a strong sense of responsibility to help one of our clinicians if he/she has a personal problem.	1	2	3	4
u. There is a high level of commitment to measuring clinical outcomes.	1	2	3	4
v. Quality of care is goal one.	1	2	3	4
w. We rely heavily on computer-based information when seeing a patient.	1	2	3	4
x. Candid and open communications exist between clinicians and nurses / care team members	1	2	3	4
y. We encourage the internal reporting of all adverse patient care events.	1	2	3	4
z. There is a high degree of organizational trust.	1	2	3	4
aa. There is a general agreement on treatment methods.	1	2	3	4
bb. We have developed a common standard of care.	1	2	3	4
cc. Our clinical leadership is concerned with quality of care issues.	1	2	3	4
dd. Adequate training is provided in dealing with quality of care issues.	1	2	3	4
ee. Making changes to reduce the possibility of substandard care is easy for us.	1	2	3	4

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2. To what degree do the following statements reflect your feelings about practice leadership?	Not at all			To a great extent
a. Practice leadership promotes an environment that is an enjoyable place to work.	1	2	3	4
b. Leadership in this practice creates an environment where things can be accomplished.	1	2	3	4
c. Leadership strongly supports practice change efforts.	1	2	3	4
d. The practice leadership makes sure that we have the time and space necessary to discuss changes to improve care.	1	2	3	4
e. Most of the people who work in our practice seem to enjoy their work.	1	2	3	4

3. Please assess how well each statement describes your own practice situation:	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. Work rarely encroaches on my personal time.	1	2	3	4	5
b. My work schedule leaves me enough time for my family.	1	2	3	4	5
c. The amount of call I am required to take is not excessive.	1	2	3	4	5
d. The interruption of my personal life by work is not a problem.	1	2	3	4	5

Section F. Check as many as apply – prioritize top 3.

To improve our wellness focus for providers, I would like to see:

	Yes	Check if your "Top 3"
1. Longer visits/more time for procedures		
2. "Desk top" time allotted for EMR "catch up"		
3. More support for work-home balance		
4. More clinical case discussions among colleagues		
5. More teamwork in clinical practice		
6. "Float pool" to cover absences for vacations and life events		
7. More time for exercise and meals		
8. More support by clinical leadership for wellness		
9. More EMR support – less work at home		
10. Sessions with leaders to discuss values and direction		

11. More tech support		
12. More smart phrases and filters		

Section G

1. What is your age? _____
2. Sex? Male Female
3. Marital status? Single Married/Domestic partner Divorced/Widowed Separated
4. What is your ethnicity? (please choose one) Hispanic/Latino Not Hispanic/Latino
5. What is your race? (circle a number for all that apply)
 - a. White (European, Middle Eastern, other) 1
 - b. Black or African American 2

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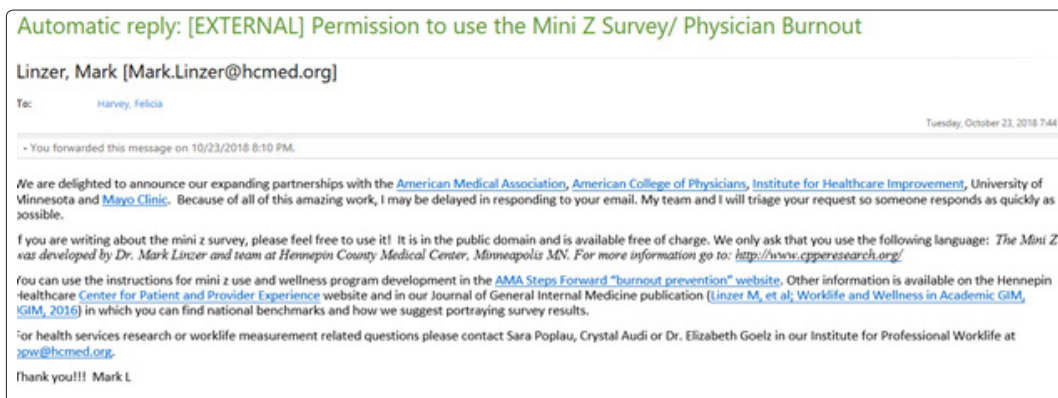
- c. American Indian or Alaska Native 3
- d. Native Hawaiian or Pacific Islander 4
- e. Asian 5
- f. Other: _____ 6

6. What type of clinician are you? MD DO PA NP PhD Other _____
7. In what medical specialty or subspecialty is the majority of your patient care? _____
8. How many years have you worked at your current practice setting? _____
9. Do you practice in an "open access" or 'advanced access' appointment system? yes no
 - a. If yes, for how many months? _____
10. Are you one of the owners (shareholder or partner) of this practice organization? yes no
11. Please tell us what it's like to work in your unit? What are the successes? Challenges?
12. How long did it take you to complete this survey? _____ minutes

If you have questions or concerns, please contact Mark Linzer, M.D., Division of General Internal Medicine at Hennepin County Medical Center, mark.linzer@hcmcd.org or Sara Poplau, sara.poplau@hcmcd.org.

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Appendix D



Appendix E

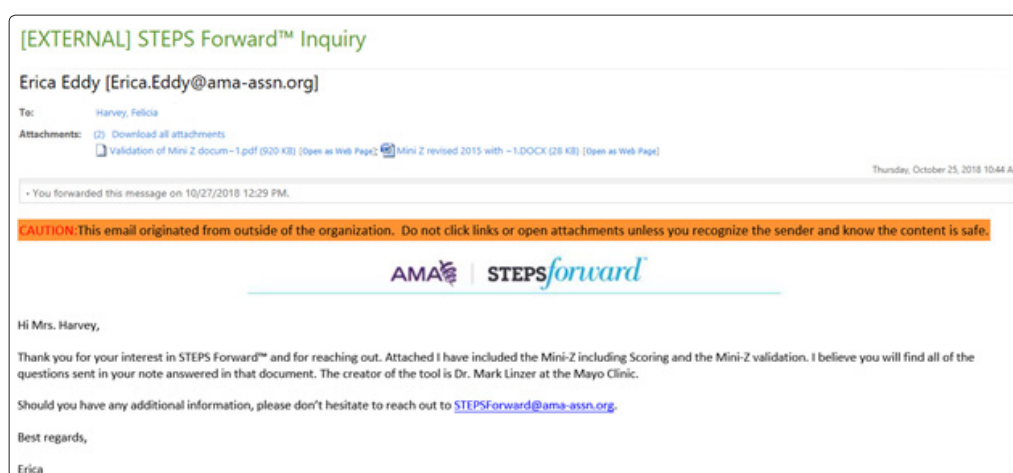


Table 1: Simplified Project Timeline

Task	October	November	December	January	February	March	April
Recruitment of eligible participants	X	continued	?				
Intervention; Evaluation; Toolkit	X	X	X	X	X		
Post-test and Analysis of outcomes				X	X	X	X
Results presented to local providers							X

Intervention

The intervention process was a component of this study and it included the promotion of the well-being pilot program over a period of two weeks. The promotion consisted of the project lead creating posters and displaying them in the lunchrooms, conference rooms, and in the restrooms that are dedicated specifically to staff. The posters highlighted ways to recognize signs of burnout and ways to build resilience to burnout i.e. exercise, sleep and proper nutrition. The project lead used the posters to showcase established resources on and offsite that can be used as a quality of life model

to connect physicians to resources that will impact their health outcomes now and for years to come.

After the launching of the poster campaign was over, the project lead hosted two one-hour lunch and learn sessions at the project leads expense with the understanding that again the sole purpose of the lunch and learn sessions was to educate physicians on burnout and provide them with a list of burnout prevention and or intervention resources.

The project lead will integrate the physician wellness pilot program into the organization's current wellness program that was initially put together for all hospital staff. With the support of the CHRO and the CMO, the project lead now participates in this organization's wellness committee meetings. Lastly, the project lead will work in partnership with the organization's wellness committee for the sole purpose of acquiring, offering and or soliciting resources that will combat and or rid burnout specific to physicians.

Post Intervention

The post intervention survey process took place at the conclusion of the lunch and learn sessions. As the physicians entered the room, they were given instructions about the lunch and were given the Mini-Z survey that were randomly numbered and placed in a closed two-pocket folder. The project lead explained to the participants that they were under no obligation to complete the survey. The project lead explained to the participants that the data abstracted from the completed surveys were used for the purposes of comparing the data collected on that day to the previously submitted survey results that they completed in early 2018. The participants were asked not to open the folders or complete the survey until after the lunch and learn session ended. Participants spent approximately 10 minutes in total of their time to complete the post intervention questionnaire. The project lead reminded the participants that their participation was voluntarily. The project lead explained to the participants that the identified survey data results would be reported to the CHRO, the CMO and the wellness committee chair for the purposes of quality improvement. The data collected from the paper surveys was later transferred by the project lead to an excel spreadsheet using a password protected computer and placed in a locked room. The survey documents were shredded after the data was transferred into Excel. All practicing physicians at this organization was given the opportunity to participate in the lunch and learn sessions and they were given the opportunity to complete the survey.

Ethical Considerations/Protection of Human Subjects

Ethical considerations and the protection of human subjects were a necessary component of this project. Therefore, the project lead obtained Nebraska Methodist College IRB approval before implementing this project. The project site did not require a separate IRB approval since it served as a quality improvement project.

During the post intervention process, participants were informed about the study and understood that their participation implies consent. To ensure the highest standard of care, the project lead and mentor completed the Collaborative Institutional Training Initiative (CITI) prior to the launching of the project. Participants were informed that there were minimal risks associated with the project. There was a potential for a possible breach to the computer system. To eliminate this risk, there was no identifiable information collected, the computer was password-protected, and the computer was stored in a locked file cabinet.

Participants understood that their participation was voluntary and that there was no compensation for participating in this study. The one-hour lunch and learn survey sessions included free lunch. During the post-intervention process, participants were informed of the potential benefits of identifying resources for a wellness program and the project lead will convey the message that the

premise behind the program will be to ensure that negative health outcomes associated with burnout are significantly reduced and or eliminated.

The project lead works for the project site but does not have access to the confidential personnel records, therefore the project lead could not determine if the same practicing physicians who completed the pre-intervention survey actually completed the post intervention survey. The project lead marketed the intervention information to all practicing physicians and was unable to confirm who of the current practicing physician group was an active employee during the pre-intervention data collection period. All current practicing physicians had an opportunity to complete the post intervention survey following the lunch and learn sessions. The project lead did not foresee a conflict of interest.

Data Analysis

The project lead entered the post intervention survey data into an excel spreadsheet and then shared it with the Nebraska Methodist College statistician. The statistician then ran a hypothesis sample proportions test with continuity correction on the data collected from the post intervention survey. The pre-intervention data was analyzed using the SPSS statistical software. The post intervention data was merged with the pre-intervention data and analyzed using the R-Programming statistical software.

Results

The participant sample size for the post survey was significantly smaller (with less than 50 surveyors) as compared to the pre-intervention participant sample surveyors (less than 300). The pre-intervention survey was conducted electronically as compared to the post-intervention, which was conducted in person using a paper version of the survey. Notably, the margin of error increases if the sample size goes down. Contrary, as the sample size goes up, the margin of error goes down.

The job satisfaction and stress level of participants who took the pre and post intervention survey were compared the results to the national average (Figure 2). The post intervention data survey results showed the physicians at this organization were less stressed and more satisfied with their job at (0.555) percent compared to pre intervention survey results that faired (0.77) and compared to that of the national average of (0.80). There was a significant difference between the pre and post satisfaction results, $p=0.0019$.

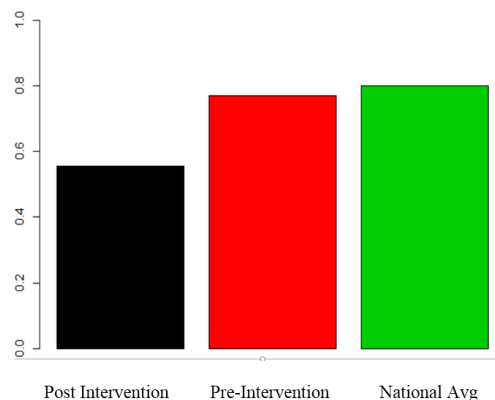


Figure 2: Stress and Job Satisfaction

Stress and Job Satisfaction

The burnout level of participants who took the pre and post intervention survey were compared the results to the national average (Figure 3). The post intervention survey results showed the physicians at this organization are now experiencing a lower level of burnout (0.444) compared to pre intervention survey results conducted by this organization that faired (0.53). The physicians are experiencing a higher level of burnout compared to that of the national average of (0.29). There was not a significant difference between the pre and post burnout results, $p=0.317$.

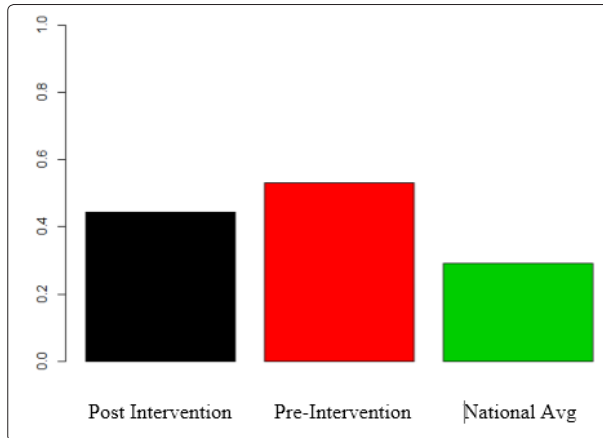


Figure 3: Burnout

Limitations

Many limitations resulted in a decrease in survey completion. Some participants (although engaged in the session) were resistant to completing the post intervention survey questionnaire in its entirety. There were also participants who started the survey but did not complete it. A few participants did not stay until the end of the lunch and learn session therefore; they did not complete a survey. Another limitation of the study was the paper survey. There were participants who preferred an electronic survey. Additionally, the post satisfaction question was slightly different from the pre satisfaction question.

Discussion

Overall, the results of this project showed there was significant information to support a physician wellness program for the sampled healthcare institution. The evidence supports the need for both physicians and the leaders in this sampled organization to find ways to reduce and or prevent burnout in order to increase the overall quality of life for practicing physicians. The post-survey data revealed an increase of job satisfaction and a decrease of burnout. This is indicative of the importance of physician-focused wellness. I believe the increase in job satisfaction and decrease in stress was contributed to the fact that the sampled organization hired more support staff to absorb some of the administrative work that was previously carried out by practicing physicians. Having the additional support staff in place allowed the physicians to reduce their work hours, which contributed to work life balance.

The development of the wellness committee that focused on the quality of life for practicing physicians may have encouraged the physicians to be more cognitive of their work life balance. Lastly, the physicians may have believed that the implementation of the wellness committee and the communicated goals of the committee conveyed the message that their voices were heard; their feelings were valued

and displayed a message of support from the organization leadership. The evidence showed there was a need for this organization to incorporate a physician focused wellness component to their current system wide wellness program in order to improve the wellbeing for practicing physicians. The evidence further supported the need for the healthcare system overall to support the removal of stigmas associated with physicians seeking help since the act of seeking help was an area that was identified as a barrier to physicians seeking and or utilizing wellness resources.

The wellness committee in this organization is an active fully engaged committee that is committed to the overall wellbeing of their employees. The organization has shown their commitment to reducing and or eliminating physician burnout by way of adding the physician wellness component to their wellness committee. The project lead has provided evidence that supports the incorporation of the physician wellness component to the sampled organizations health outcomes for both the physicians and the patients they serve will improve. The organizations leadership has charged the wellness committee members to take steps to improve and promote the overall wellbeing of all active employees. Furthermore, the organizations leadership has shown their commitment to continue its wellness efforts by inviting the project lead to become a member of the wellness committee.

Implications for Practice

Physician burnout is an ever-increasing negative issue that healthcare communities across America cannot ignore. The consequences of physician burnout include a variety of issues including medical errors, depression amongst physicians, substance abuse, and disengagement to patients to name a few. While physician burnout starts with doctors, unfortunately, the negative health outcomes may impact the patients, they serve due to rising rates of physician burnout and healthcare organizations inability to deliver quality care and maintain a healthy physician workforce [3]. This evidenced based project suggests the use of a wellness program that is supported by both the physician and the organization and may help to improve the quality of life and care for physicians in practice today and for years to come.

In a recent article, Dr. Shanafelt mentioned, burnout and medical errors independently double the risk of suicidal thoughts among physicians. Therefore, organizations that embrace a physician well-being program can have significant impact to both the personal and professional lives of healthcare providers [48]. A wellness program can also look at physician burnout from all facets, rid and or reduce the consequences of physician burnout and it has the capacity to offer/ promote tools for improvement like exercising, work life balance, nutrition, encourage relationship building outside of work while reducing suicide for practicing physicians. The underline goal of a wellness program is to provide support to physicians so that they, in turn, can provide the best health care while reducing their personal and professional risk. All these tools can help to promote resiliency for physicians now and for years to come [49].

Plan for Sustainability

The evidence-based project and the literature reviews support a wellness program. This program will be in line with the mission and values of this organization because the overarching goal of this program is to meet the needs of the physicians so they can meet the needs of their patients as compared to the goals of the organization,

which is to meet the needs of the patients. The wellness program can be sustained by incorporating the goals of this physician-focused program into the goals of the organization's current wellness program goals. The incorporation of such programs and self-care strategies can impact both personal and professional lives of healthcare providers [48]. This quality improvement pilot program provided a foundation for the leaders of this organization to build their current wellness program for future use that focuses on current employees including practicing physicians. As the project lead, I have now joined the organizations wellness committee with the support of the Chief Medical Officer and the Chief of Human Resources Officer to sustain the wellness program targeted towards practicing physicians of this organization.

Conclusion

In conclusion, organizations must take steps to identify causes of burnout and take active steps towards eliminating and or reducing burnout. According to Panagioti, et al., physicians gain benefits from intervention that aim towards reducing burnout, especially from organization-directed intervention. Lastly, the findings showed there was a growing body of evidence related to clinician burnout [50]. However, with the physician and organizations working together to unveil strategies to reduce or rid burnout, this epidemic can be stabilized for the sake of positively impacting health outcomes for the physicians and the entire healthcare system. Organizations must create an atmosphere that promotes burnout awareness and create access paths to burnout resources so that physicians aren't burden by hurdles, barriers or stigmas associated with using burnout resources.

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