UNDERSTANDING WORKPLACE CONDITIONS CONTRIBUTING TO PHYSICIAN BURNOUT PREVALENCE IN MARYLAND STATE

by

Fatima Adefunke Queen

Dissertation

Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Liberty University, School of Business

February 2022

Abstract

Physician burnout is a three-dimensional work-related response to prolonged and unresolved stress. The prevalence of up to 50 percent is higher among primary care providers in the U.S. and is a significant healthcare problem. This qualitative multiple-case study explored workplace conditions contributing to physician burnout in Maryland State. In a purposive sample, the researcher interviewed twenty-one (21) physicians comprised of Medical Doctors (M.D.), Doctors of Nursing Practitioners (DNPs), and Nurse Practitioners (NP). The Shanafelt's well-being framework was applied to understand physician burnout, workplace conditions, and attrition. Data was collected and analyzed using semi-structured interviews and literature. Five themes analyzed are: Excessive workload, healthcare financing and insurance, limited workplace resources, systemic issues, and the COVID-19 pandemic. The implications include sub-optimal care quality and physician shortages, which continue to define the U.S. healthcare system despite high healthcare expenditure.

Keywords: physician burnout, workplace conditions, physician shortages, resilience, healthcare politics

UNDERSTANDING WORKPLACE CONDITIONS CONTRIBUTING TO PHYSICIAN BURNOUT PREVALENCE IN MARYLAND STATE

by

Fatima Adefunke Queen

Dissertation

Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Liberty University, School of Business

December 2022

Approvals

Fatima A. Queen, Doctoral Candidate	Date
Terrence Duncan, D.B.A., Dissertation Chair	Date
Renita Ellis, Ph.D., Dissertation Committee Member	Date
Edward M. Moore Ph.D., Director of Doctoral Programs	Date

Dedication

I dedicate this study to the memory of my late loved ones. My two sisters, Subedat Bello and Modinat Amusa, my brother Moruf Amusa and my parents. I miss you all, especially my brother, whom I never thought would be gone before I finished this doctoral journey. I had planned how to tell you that your girl took it all the way, that I earned a doctorate, and to thank you for assuming all financial responsibilities for my undergraduate after our father died. I envisioned how proud you would be, but I was too late. The vacuum of your absences remains a gaping hole. I wish you all were here to see this. It is lonely without you all.

Acknowledgments

First and foremost, I would like to give my immense appreciation to God the Father, the Son, and the Holy Spirit, for preserving my life to complete this degree and for the privilege of achieving this life-long dream. Special thanks to Dr. Olugbenga Oyewole, for his immeasurable support and comic relief and for encouraging me when I felt like quitting. To my three wonderful gifts of God, Todi, Tomiwa, and Momoore, for their sacrifices and endurance while I completed this journey. Thank you for providing technical support when I needed help with the computer and preparing meals for me when I did not have the time. To Tomiwa, thank you for taking your brother on all those soccer trips in my absence; I appreciate your assistance at every step.

I also acknowledge the staff at Liberty University for their contributions to this research study. To my dissertation chair, Dr. Terrence Duncan. I appreciate all the recommendations. To my dissertation committee member, Dr. Renita Ellis, and the university reviewer, Dr. Nicole Lowes, I appreciate your helpful feedback, and you ladies are the best. I also thank and appreciate my friends and work colleagues for their support and my research participants for their time. I also thank Dr. Gilda Drammeh, Dr. Ikechi Okwara, Dr. Debo Ajayi, and Dr. Tola Idowu for being my advocates. I appreciate every one of you.

Table of Contents

List of Tables

List of Figures

Section 1: Foundation of the Study

Physician burnout is a global problem, particularly as the healthcare environment advances and becomes increasingly involved in expanded leadership roles (Rotenstein et al., 2018; Shanafelt & Noseworthy, 2017). Issues such as government regulations, medical payers' stringent rules, and the electronic health record problem are stressors to the physician, impeding optimal performance and increasing the workload (Han et al., 2019). Also, navigating the rapidly expanding profession, reduced autonomy, and certification maintenance challenges increase the toll (Shanafelt et al., 2017a). The concept of burnout first emerged in 1974 and remains a crucial issue to researchers and practitioners because of its adverse effects on work engagement (Shelley, 2019). Physicians, especially those trapped in the profit-maximizing and metric-driven performance measuring system, struggle with fulfilling their ambition to care and heal because of burnout. Although physicians in all specialties experience some burnout, some physicians are more vulnerable, as reports indicated a significantly higher prevalence than other practitioners (Lin et al., 2019a; Lu et al., 2015; Stehman et al., 2019).

Despite the numerous burnout studies, gaps exist, including studies involving workplace conditions (West et al., 2018). Workplace conditions drive physician burnout (Loerbroks et al., 2017). Preventing it is necessary on both ethical and economic grounds. The problem has numerous dimensions, and the Quadruple Aim provides healthcare research with a multi-dimensional focus on the physician's positive work engagement. This study explored the effects of these conditions on physician burnout prevalence in Maryland State. Burnout studies predicted that the problem would worsen and foresee a physician burnout epidemic unless the research focus is adjusted to understand how workplace conditions contribute to burnout (MacArthur et al., 2018). The current dire situation and possible consequences, principal among

which physician attrition and consequences, prompted Congress in 2020 to purposely address the physician shortage by ending the nearly 25-year freeze on Medicare support for GME by adding 200 per year of new Medicare-supported Graduate Medical Education (GME) positions for five years, especially in underserved rural and urban communities and other teaching hospitals nationwide. Furthermore, a bipartisan U.S. House of Representatives and the Senate introduced the Resident Physician Shortage Reduction Act of 2021 to build upon this historic investment by expanding the physician workforce by adding 2,000 federally supported medical residency positions annually for seven years (AAMC, 2021).

Although the numerous challenges associated with the problem are not in contention by researchers and healthcare leaders, the problem is that burnout studies have focused on the physician risk factors and the prevalence (Epstein & Privitera, 2016). For this reason, most intervention suggestions have not been pragmatic (Yates, 2020). The relationship between workplace conditions and physician attrition also needs to be recognized in addition to the other burnout consequences because these conditions tend to perpetuate burnout prevalence through cyclical physician shortages. Furthermore, physician shortage studies do not often recognize burnout as a significant risk factor and omit essential research issues.

Background of the Problem

Burnout is a result of chronic work-related stress syndrome characterized by the three dimensions of emotional exhaustion (E.E.), depersonalization (D.P.), and a sense of reduced personal achievement (P.A.) (Patel et al., 2018; West et al., 2018; Williams et al., 2020a). The problem is not unique to the healthcare profession. However, the numerous work-related stressors facing physicians, particularly hospital physicians, are more constant than in most other jobs, making them more vulnerable (Kearney et al., 2020). A 2011 study involving more than

7,000 physicians showed 41 percent burnout and a further nine percent increase in a follow-up study in 2014 (Dyrbye et al., 2017). Another study in 2017 showed that a staggering 76.1 percent of physicians reported burnout (Lin et al., 2019b).

Physicians experience burnout at a rate twice that of other professionals, and the situation is more critical among frontline physicians (Maurer, 2017). The prevalence is responsible for increased mental and psychological problems, substance abuse, and early retirement, including a suicide rate twice that of the other professions (Williams et al., 2020b). Studies also show that this has resulted in a steady physician turnover rate and significantly contributed to physician shortages (Vogel, 2018). The suboptimal quality that characterizes the American healthcare system is also a consequence of physician burnout and attrition (Gunter, 2016; Shanafelt & Noseworthy, 2017). Furthermore, the U.S. lingering physician shortage, currently at 61,800, is projected to increase to 104,900 by 2030, worsening the situation (Gudbranson et al., 2017; Maurer, 2017).

Healthcare organizations incur losses due to burnout prevalence, culminating in the continuous sourcing and recruitment of physicians. They also incur financial penalties for excessive readmissions due to burned-out physicians' low quality of care (Blouin & Podjasek, 2019). Burnout also exposes physicians to litigations for delayed and missed care, poor patient experience, and adverse patient outcomes (Fronek & Brubaker, 2019). From the Covid-19 pandemic fallouts to the aging demography, the burdens of limited workplace resources in healthcare organizations will increase in the coming years. Physician burnout will also increase because of the physicians' broad spectrum of stress effects and their obligation to make quick and prompt reactions in which emotional mechanisms are often ineffective (Ilic et al., 2017, Shanafelt et al., 2019).

Studies have also shown that the kind of attitude adjustments that interventions have promoted do not work, and studies show that system-level factors are the most significant burnout drivers. Systemic interventions remain minimal due to insufficient research into specific organizational causes (Shanafelt et al., 2019). Interventions such as counseling, mental health treatments, and behavioral modifications target physicians, are ineffective, and constitute stigmatization of burnout sufferers (Medscape, 2019). Strategies involving workplace-focused interventions are more important and necessary (Thimmapuram et al., 2019). As shown in figure 1, burnout affects the physician, patient, and healthcare system (West et al., 2018). Physician burnout worsens the U.S. healthcare system's mediocrity in turnover, costs, reduced productivity, and care outcomes (Chetlen et al., 2019). Studies, such as the longitudinal one by the Mayo Clinic to evaluate the association between physician burnout and changes in professional work efforts, showed a relationship between physician burnout and reductions in professional work efforts (Attenello et al., 2018; Hoff et al., 2019; Olson et al., 2019).

Problem Statement

The general problem addressed is the prevalence of physician burnout resulting in physician shortages. The issue of physician burnout affects the entire healthcare system, healthcare organizations, and patients. It contributes to physician attrition through suicide, job disengagement, early retirement, and reduced clinical hours (Dewa et al., 2017; Hasan et al., 2019). Burnout is also responsible for ongoing faculty physician shortages, impeding medical education, research, and the supply of newly trained physicians (Nassar et al., 2020). Furthermore, the U.S. incurs an estimated $4.6 billion annually in productivity loss stemming from physician burnout (Han et al., 2019). Studies showed other consequences, such as increased medical errors, sub-optimal care quality, and adverse patient outcomes. Those consequences

directly affecting physicians include alcohol dependence, drug abuse, addiction, absenteeism, low productivity, and mental illnesses (Dyrbye et al., 2018; Mull & Bowman, 2020). Burnout studies have been physician-centric, often citing physicians' coping mechanism failure, emotional intelligence, and physical health, which are inversely related to burnout, and physicians' age and experience as significant contributors. However, emerging studies show that workplace conditions contribute significantly to physician burnout (Epstein & Privitera, 2016; Gleason et al., 2020; Iorga et al., 2017; Kim et al., 2020; Yates, 2020). The specific problem addressed is how potential workplace conditions affect physician burnout in Maryland State, resulting in physician shortages (Colgan, 2021; Firew et al., 2020; Kung et al., 2019).

Purpose Statement

The purpose of this flexible design multiple-case study was to explore the reasons behind the prevalence of physician burnout, resulting in potential physician shortages within the healthcare sector. The researcher sought to understand how workplace conditions affected the likelihood of physician burnout. The study of burnout has primarily focused on the physician's risk factors and the consequences (Gregory et al., 2018). There is extensive literature on improvement suggestions encouraging physicians to develop personal coping skills without clearly identifying the burnout origin, thereby portraying the problem as a sign of the physician's weakness or professional unsuitability (Heineman & Heineman, 2017; Mull et al., 2019). Understanding how workplace issues contribute to burnout can improve consistent burnout classifications and better identify the causes and effects, creating clear pathways to developing appropriate interventions. Also, there is an increased call for physician well-being in the healthcare system improvement strategies to promote better quality, focusing on burnout (Panagioti et al., 2017; Rotenstein et al., 2018). The findings of this study will contribute to

solutions to the existing problems associated with the threat to safe and high-quality healthcare in general. The research will also advance the discussions that may help alleviate the burnout stigma on physicians (Vogel, 2018). Furthermore, the study contributes to healthcare improvement discussions that translate to reductions in U.S. healthcare problems such as high healthcare costs and low care quality.

Research Questions

The three guiding research questions helped to explore the workplace conditions or experiences associated with burnout and its contribution to physician attrition or shortages. A qualitative multiple-case study approach was applied to gain the perspective of Maryland healthcare providers about their workplace conditions or experiences that contributed to physician burnout. Yin (2018) posited that case study research questions are flexible and explore the "how" and "what." A case study research design was appropriate for this study because it focused on how and what workplace conditions influence physician burnout and physician attrition. Qualitative research questions must possess specific quality criteria, including broadness and openness to unexpected findings, which can sometimes change because of their contextual nature.

Contrary to quantitative research questions, qualitative research questions are often not generalizable because the fact is a construction of the social, historical, cultural, and individual contexts and searches for realities and varieties of the phenomenon (Korstjens & Moser, 2017). The following research questions design had all these qualities in mind and encouraged research participants to detail their experience without any lead or suggestion of a prefabricated conclusion. As the study progresses, research questions may also undergo modification when data collection and analysis reveal a better study focus (Korstjens & Moser, 2017).

The three guiding questions designed for this study are:

RQ1. How have workplace conditions affected the likelihood of physician burnout?

RQ2. What workplace conditions or experiences are responsible for contributing to physician burnout?

RQ3. How do physicians describe their experience with burnout, and how does burnout contribute to physician attrition or shortage in this care facility?

Several risk factors are associated with physician burnout, and some are more problematic for physicians than others (Del Carmen et al., 2019). The first question concerns how physicians interpret their stress levels to ascertain whether they consider themselves stressed or burned out. Since the study determines the workplace conditions contributing to burnout, the initial question evaluated burnout before deciding on the cause. Furthermore, this framing allows the responder to specify their experience with workplace conditions rather than the researcher leading them to that conclusion.

The second question attempted to identify and evaluate specific workplace conditions that constitute physician burnout's highest risk factors, including their characteristics and classifications. This question is necessary because workplace problems do not equally affect all physicians. Some issues are general and inherent in the healthcare workplace, while others are peculiar. The study attempts to identify those conditions that mainly trigger a physician's resilience outflow and increase their susceptibility (Atkinson et al., 2017). Given the numerous strategies and interventions for ensuring employee wellness and development, question two helps assess burnout management strategies in the care setting. Organizations can identify and mitigate these circumstantial factors to prevent burnout, which may be easier than intervention. This question is at the core of this research because it helps identify factors that trigger resilience

outflow. Question three is significant to the study because physician attrition research often does not cite burnout as a risk factor (Chirico, 2017). The question allows physicians to share their and their colleagues' experiences of how burnout contributed to their willingness to leave work.

Nature of the Study

This study aimed to understand the prevalence of physician burnout, resulting in potential physician shortages in the state of Maryland. A qualitative research method was appropriate for this multiple-case study because it allowed the researcher to obtain the perspective of the Maryland physicians and their experiences through semi-structured interviews. Creswell and Poth (2018) explained that qualitative research methods helped researchers understand the actions and behaviors associated with a group of individuals. A case study design was also appropriate for this study because it focuses on a specific group of healthcare professionals. Yin (2018) stated that case studies might consist of a case of an individual, organization, group, or problem within a specific period. This researcher implemented open-ended questions in semi-structured interviews to allow free exploration of deep conversations with primary care physicians in diverse healthcare settings and workplaces in Maryland state.

Discussion of Research Paradigms

Research paradigms are a set of assumptions and beliefs about the world and are central to research and the understanding of research studies (Job & Blok, 2021). They are the worldviews and the guiding principles of social research. Understanding a social issue depends on several important factors, one of which is the adopted research paradigm. The researcher chose a pragmatic philosophical approach because it matched the understudied phenomenon (Job & Blok, 2021). Adopting a research paradigm depended on the study's dimension rather than a commitment to the study method (Robson & McCartan, 2016). The primary research paradigms

are positivism, post-positivism, constructivism, and pragmatism (Robson & McCartan, 2016). Paradigm descriptions often involve ontological, epistemological, axiological, rhetorical assumptions, and methodological and inquiry strategies. Another description is ontology, which deals with the nature of reality about knowledge, and epistemology, the connection between the researcher and the study (Denny & Wecesser, 2019).

Positivism. Positivism is the philosophical theory of naive realism in which occurrences are interpreted based on natural phenomena and sensory experiences interpreted through logic. It relies on quantitative data. The guiding philosophy rule is that of cause and effect, which is based on the belief that science is the only valid knowledge and that reality must be observable (Alharahsheh & Pius, 2020). The positivist researcher believes that the general laws of operation control the universe's complexity and intricacy. The ontological nature makes the paradigm a self-governing research strategy, free from individual observer opinions (Verhaegh, 2020). Similar to positivism, applying post-positivism is inadequate to study social behaviors, which are often complex and non-linear. The successes of natural sciences inspired positivism, and its origin was a way to understand society and the means to an end (Corry et al., 2019). Although it originated and pairs with the natural sciences, the terminologies and categorization have shifted over the years and no longer guide the qualitative research paradigm.

Post-positivism. Positivism developed as a partial rejection of positivism (Corry et al., 2019). It is believed that nature and science do not exist in a vacuum but within the social system where human influence is dominant (Corry et al., 2019). Post-positivism is a constellation of ideas that signifies all that came after positivism and defines different combinations of such statements. Post-positivists argued that positivism is subjective in its definition of truth, although it still shares some of the outlooks of realism and objectivism (Gamlen & McIntyre, 2018).

Moreover, post-positivists believe that qualitative documentation methods such as interviews adequately capture reports and make sense of social actions. For example, a qualitative analysis is essential in a global migration study, and a numerical analysis describes and compares changes between different countries and their impacts (Robson & McCartan, 2016). According to Robson and McCartan (2016), post-positivism and positivism share some of the same attributes. These include the relevance of science in understanding cause and effects, the importance of empirical observation for knowledge sourcing, and the value-neutrality of science (Corry et al., 2019). However, post-positivists differed in their belief about the role and ability of scientists to uncover the true nature of causal laws (Corry et al., 2019).

Constructivism. Constructivism is a learning paradigm grounded in educational philosophy, emphasizing discovery exploration (Farrokhnia et al., 2022; Sharma & Bansal, 2017). Constructivism encourages instructional theories focusing on real-life activities where learners actively interact with the real world. Contexts affected learning performance, enhanced learning interest, and improved efficiency, similar to how real-world applications improved learning outcomes (Huang & Liaw, 2018). This opportunity allowed a researcher to have an independent opinion of truth based on personal experience and background, emphasizing social interactions, especially with community members (Huang & Liaw, 2018). Furthermore, constructivism is learner-centered and aligns new information with the old, using self-referencing of knowledge, attitudes, and belief in expertise and meaning construction (Clark, 2018). Based on a constructivist approach, instructional theories focus on real-life activities to motivate learners. Context is an essential factor affecting learning performance and enhancing learning interest and efficiency. Lincoln and Guba (2013) posited that learners actively interact

with the real world, applying their knowledge to daily life activities, thus increasing the effectiveness of learning outcomes.

Pragmatism. Pragmatism originated in the philosophy of 19th century Cambridge, Massachusetts, U.S. It became popular through its relationship with mixed-methods research and is a consequence of the belief of a group of scholars in the multiple versions of the truth (Kaushik & Walsh, 2019). Pragmatists focus on the research problem and believe that researchers should engage in the philosophical and methodological approach best suited for the research phenomenon rather than the methodic consequence (Robson & McCartan, 2016). Moreover, pragmatists believe usefulness, results, or anticipated outcomes determines truth, and human experience and needs determine the meaning (Kaushik & Walsh, 2019). Furthermore, pragmatists show an appreciation for beliefs and understanding of religion as it emphasizes substances more profoundly than applied language (Irudayadason, 2021).

For this study, the researcher chose a pragmatic research paradigm that helped explain workplace conditions contributing to burnout and potential physician shortages in Maryland. Some healthcare leaders have rejected positivism and embraced pragmatism as one of the many forms of knowledge (Long et al., 2018). When applying a pragmatic belief, the researcher's objective is to understand the actions and behaviors of physicians from a philosophical standpoint. As a Christian researcher, the challenge remains to apply the commonalities between healthcare practice and pragmatism. Implementation of practice guidelines, industry standards, and research outcomes can resolve the difficulties experienced in the healthcare environment. This fusion of truths is pragmatic but sometimes poses challenges to the Christianity belief of the existence of the Bible- the only acceptable and absolute truth, as stated in Psalm 119:142 (NIV), that God's righteousness is everlasting, and his law is the truth. However, pragmatism is

adaptable to learning and understanding religion and the belief system of a demonstrated reality of faith and God.

Pragmatism further supports what Apostle Paul preached in Colossians 2:8 NIV "See to it that no one takes you captive through philosophy and empty deception, according to the tradition of men, according to the elementary principles of the world, rather than according to Christ." To carry out Christ-centered research encapsulated in Biblical principles of God's mandate, bearing in mind the commandments and the great commission, a healthcare researcher must find the deeper meanings in the Book and harmonize them with the pragmatic paradigm. Furthermore, pragmatism shows an appreciation for beliefs and understanding of religion as it emphasizes substances more profoundly than applied language (Irudayadason, 2021). Management is responsible for making decisions regarding the complex nature of the healthcare system. Therefore, a pragmatic belief would be that knowledge is not unquestionable and only becomes truth when paired with actions (Long et al., 2018). Researchers adopting a pragmatic belief require evidence of what works and what does not. Conceptualizing a better future without proof is difficult in healthcare management; however, pragmatism is adaptable to learning and understanding the belief system of a demonstrated reality of faith (Long et al., 2018).

Discussion of Design

This section will discuss flexible designs that include narrative, phenomenology, grounded theory, ethnography, and case study and their level of appropriateness for this study.

Discussion of Flexible Designs. The researcher applied a case study design for this study to understand the prevalence of physician burnout, resulting in potential physician shortages. Specifically, the researcher chose a multiple-case study because it consists of more than one case (Yin, 2018). A case study design was appropriate for this study because it allowed the researcher

to obtain various perspectives on workplace conditions (Abma & Stake, 2014). The case study design approach assisted the researcher in understanding the research problem within the context (Harrison et al., 2017). Additionally, the researcher was able to interact with participants by conducting semi-structured interviews with Maryland physicians to understand their views and opinions of what, how, and why their workplace conditions lead to burnout (Morgan et al., 2017). Additionally, a case study was appropriate for this study because the researcher used patterns and themes to analyze the data presented within the case (Yin, 2018).

The other research designs, narrative, phenomenology, grounded theory, and ethnography were inappropriate for this study because they are variable based. Case study investigation is case-based research that uses the patterns of the variables present within the case (Yin, 2018). Furthermore, the case study research trilogy of a mode, method, and inquiry unit differs from other qualitative observation research designs in scope and participation (Yin, 2017). A narrative research design was deemed inappropriate because it entailed weaving the sequence of an occurrence from a personal perspective (Creswell & Poth, 2016). Case studies explore groups of individuals experiencing the same event instead of an individual's life story (Creswell & Poth, 2018).

Similarly, a phenomenological research design was inappropriate because the researcher's objective was not to understand individual lived experiences; instead, the focus was on groups of individuals (Creswell & Poth, 2018). Additionally, grounded theory was inappropriate for this study because the researcher's objective was not to generate a new theory. Ethnography design was deemed inappropriate for this study because it would require the researcher to immerse in the event for an extended period to understand the meaning (Creswell & Poth, 2018). Therefore, the case study design was most appropriate because it requires the

researcher to explore groups of individuals with a shared experience to gain insider views and capture this study's essence. Moreover, the case study design supports the need to understand workplace conditions that may not have been obvious to an outsider (Yin, 2018).

Discussion of Method

This study implemented a qualitative research approach because of its advantages over the quantitative and mixed methods (Yin, 2016). For instance, qualitative research methods collect data using instruments from real-world situations, including interviews, documents, and archival records (Yin, 2016). Through a qualitative approach, the researcher gains understanding by interacting with groups of individuals to appreciate their perception of a social problem (Cleland et al., 2018; Creswell & Creswell, 2018). Qualitative studies are flexible and help capture data through the participant's words rather than numbers (Creswell & Creswell, 2018). For this study, the researcher used a qualitative approach because it took a subjective approach, allowed modifications, and the researcher was the main instrument (Creswell & Poth, 2018).

In contrast to the quantitative research method, which applies calculations, measurements, and numerical analysis, the qualitative research method often draws from other disciplines, such as sociology and psychology, requiring in-depth analysis of meanings and perceptions with the principles learned from those other disciplines (Sawatsky et al., 2019). This attribute makes the qualitative method best suited for this study because research studies in healthcare management and medical issues can be diverse and complicated. Moreover, the quantitative method uses a set of specified variables compared to the qualitative research method, which provides opportunities to develop and test theories using real-life study participants' perspectives. The qualitative research method is also better suited for this study because although it can provide a detailed discussion of tests performed, it discourages

participants' contributions to the different themes, patterns, and relationships that may help them understand the phenomenon (Amin et al., 2020). The qualitative research method also aligns with multiple realities to provide insight into the background of the problem. This characteristic contrasts with the quantitative research method, which requires a well-formed hypothesis for validation (Creswell, 2013).

Although the quantitative method helps answer some specific variable questions, it is not optimal for answering why and how questions which are necessary for this study (Frels & Onwuegbuzie, 2013). Unlike the qualitative research method, it answers questions through mathematical analysis. Moreover, one of the problems associated with burnout studies is the diverse arrays of constructs and meanings which have guided its research and made interventions difficult. A qualitative method is crucial to analyze this relevance to the study. The qualitative was also chosen over the mixed-method research because the mixed-method analysis is most useful for research studies requiring triangulation and those involving texts and numbers to convey lived experiences. Furthermore, mixed-method research is not an inherently practical approach for this study (Shannonhouse et al., 2017).

Discussion of Triangulation

Triangulations combine interviews, observations, and literature to substantiate the findings and provide a more comprehensive description. Fusch et al. (2018) identified four qualitative study triangulation types to ensure objectivity, truth, and validity. One such method is methodological triangulation for construct validation, which is achievable using diverse sources for the same data. This researcher collected information from physicians, managers, and organizations' human resources management data. Triangulation for this research also uses the findings from the most recent literature on similar studies.

Ensuring the credibility of information received from participants through background research to develop an insight into their organization also serves as data triangulation. Caring out this study through rigorous and confirmable techniques that ensure quality data collection will also be a research triangulation. The researcher also crafted the research questions and made the analysis decisions before the data collection commenced to prevent researcher bias. Finally, the fact that this researcher is not a physician eliminates personal biases.

Summary of the Nature of the Study

The researcher implemented a qualitative research method to conduct this study because it allowed the researcher to interact with the participants. Moreover, the researcher obtained information through semi-structured interviews and documents collected from the study participants. The multiple case study approach allowed the researcher to understand the prevalence of physician burnout better, resulting in potential physician shortages. Moreover, a pragmatic paradigm allowed the researcher to make the necessary adjustments while conducting the study (Chen & Teherani, 2016). Furthermore, the researcher crafted the research questions to understand how work conditions contributed to physician burnout and allowed the researcher to interact directly with the study participants (Chen & Teherani, 2016).

Conceptual Framework

The conceptual framework designed for this study is Shanafelt and Noseworthy's (2017) Well-being Model, an improvement model that recognizes the importance of a systemwide effort to contribute to burnout reduction. The authors described healthcare burnout drivers as more comprehensive than individually influenced, and optimal conditions exist for these drivers. The model described burnout as dependent on specific prevailing conditions, and optimizing these conditions leads to well-being. In other words, burnout is the antithesis of well-being. The less

optimal state leads to burnout, making resilience a continuous process. It recognizes a stakeholder's willingness to gain support from the local, national, and international levels to determine a physician's well-being. Although physicians have a unique role in personal well-being promotion, it is insufficient to prevent burnout without employer and national support. A meaningful evaluation of burnout with the aim of reprieve should consider including this model to determine which factors are within the control of whose influence and how workplace conditions affect physician burnout and well-being.

Physician burnout is multi-dimensional and complicated; therefore, understanding the themes, clusters, and their origin in the various healthcare setting is essential for gaining more insight (Leigh et al., 2020; Stewart et al., 2019). This study utilized the well-being theory to better understand physician burnout syndrome and assess mental distress (Shanafelt & Noseworthy, 2017; Sturmberg & Bircher, 2019). In a 2016 study conducted by the Mayo Clinic, the authors claimed that the well-being evaluation is valid and superior to other models (Shanafelt & Noseworthy, 2017). Moreover, the physician's well-being has become the fourth goal in the healthcare sector and is an essential part of physician engagement (Anandarajah et al., 2018; Panagioti et al., 2017). The well-being theory embodies several models, including the coping reserve, the PERMA, Shanafelt, Rosenberg, Nam, Three-part, and NAM models (Stewart et al., 2019). It recognizes the importance of work engagement among physicians and how it positively affects physicians. Additionally, the well-being model simplifies burnout studies by focusing on how different conditions may produce different individual reactions. Figure 1 shows the well-being concept.

Figure 1. Well-being Concept

Note: This original figure was created by the researcher and shows the concepts required for physician well-being. The data collected was from *Executive leadership and physician well-being: Nine organizational strategies to promote engagement and reduce burnout* by Shanafelt, T. D., & Noseworthy, J. H., 2017, pp. 129. Copyright by Mayo Clinic Proceedings.

Concepts

Burnout Concept. Burnout is the flip side of well-being. It is a work-related term first coined in 1974 by Herbert Freudenberg. It develops from persistent mental, physical, or spiritual energy exhaustion, symptom progression that leads to reduced work goals and ideals (Montgomery et al., 2019). This study's findings suggested that burnout worsens with low resilience. It is still contrary to the assumption that the condition reflects an individual's mental

status or professional incompetence (Shelley, 2019). It results from any of the three dimensions of emotional exhaustion, depersonalization, and a loss of sense of personal achievement (Gregory et al., 2018). Also, sufferers have no escape routes. The medical profession involves emotion and empathy, and most physicians choose this profession out of their inherent feelings to provide care and healing. It may be unreasonable to assume that they hold the blame when stress and burnout erode these values (McFarland et al., 2019a).

Among physicians, burnout is rapidly becoming a public health crisis, as it affects multiple aspects of healthcare and most medical specializations. The physician suicide rate also underscores the importance of this study. In a 2019 survey of 15,069 U.S. physicians, 14% of respondents reported thoughts of suicide, most of whom did not seek professional help for fear of stigmatization (Kerlin et al., 2020; Medscape, 2019). The research is also fraught with controversies involving the construct, prevalence, and workplace drivers. Research outcomes indicate that external factors, such as workplace conditions, are significant determinants (Garcia et al., 2019). A positive working environment constitutes low stress and increases professional commitment and a balanced work-life. Still, unless the dynamism between burnout and the workplace is recognized, the physician's optimal work-life balance may remain a continuous challenge.

The Individual Factors. The physician’s unique daily challenges, such as workload and threats of malpractice suits, are more considerable and distinct than other professions (Shanafelt & Noseworthy, 2017). These challenges sometimes are exacerbated by the physician's age, sex, and experiences (West et al., 2018). Younger and female physicians experience a higher burnout rate, and men's higher disengagement rate is associated with the workload. Furthermore, individual personality and interpersonal characteristics influence coping tendencies. Other issues,

such as self-criticism, over-commitment, and inadequate support outside of work, put individuals at risk (Patel et al., 2018). supporting professional achievements, milestones, and challenging experiences such as losing a patient, medical errors, and malpractice suits help physicians maintain balance.

Organizational Factors. The perception of a good workplace climate significantly supports positive mental health outcomes among physicians. It is a robust independent factor (Perumalswami et al., 2020). Yanchus et al. (2020) identified fourteen broad categories characterizing physician workplace conditions: accountability, communication, employee services, facility environment, interpersonal behavior, leadership, network, affiliations, patient care, staff characteristics, union, work characteristics, work resources, V.A. internal services, and V.A. system, with more organizational specific details within each broad theme.

Workplace conditions are a complex interplay of the organizational factors that allow the system to frame the issues depending on the target, such as a well-being mindset different from a burnout-treatment focus (Back et al., 2016). Favorable workplace conditions are significant contributors to well-being and are independent of other factors, unlike other touted well-being contributors such as physician resilience. This vital characteristic made the workplace condition a resource that may result in well-being or burnout. Also, most burnout interventions, for instance, are pre-post studies, many of which lack viable evidence of efficacy in improving well-being.

However, a positive workplace would increase the intervention effect because of its propensity to be more scalable. Most studies have focused on individual coping capabilities as essential to well-being. The increasing relevance of burnout's organizational factors, such as workplace conditions, especially those involving employee services, affiliations, and physical

facility environment, are increasingly critical (O'Dowd et al., 2018). Furthermore, workplace conditions can significantly affect well-being strategies, such as those that teach resilience skills. Favorable conditions could reinforce skills, therefore, have better well-being results. Intervention within the workplace increases positive outcomes because it indicates that such activities are standard parts of the job rather than an afterthought.

National Factors. Physician burnout is a global problem, and addressing the root cause is essential (Patel et al., 2018). The roles of systemic factors involve national healthcare initiatives and national primary care quality improvement strategies. Initiatives such as medical home transformation requirements, which were part of the efforts to control healthcare costs and improve delivery, have become burnout sources. Physicians spend considerable time on these administrative functions and less on patient care (Grow et al., 2019). Innovations such as code of regulations, physician and organizational accreditation requirements, care integration requirements, electronic prescribing, certification agency facility regulations such as the Joint Commission on Accreditation of Health Organizations (JCAHO), pre-certifications for tests and treatments, the documentation requirement of the structured reimbursement of Medicare/Medicaid bundled payments. Reduced research and education funding increases workload demands and disrupts workflows (Shanafelt & Noseworthy, 2017).

Theories

Researchers generally agree that burnout is a multidimensional disorder based on forty years of empirical studies leading to different conceptualizations (Gerber et al., 2018). The most prominent ones are the Maslach burnout theory, the well-being, and the Conservation of Research Theory (COR).

The Well-Being Theory. The well-being theory is a multifactorial and healthcare quality marker developed by Martin Seligman, the founder of positive psychology (Shanafelt & Noseworthy, 2017; Yates, 2020). Burnout research, patient care, and quality improvement cannot be exclusive to physicians' well-being. It developed from the research work at the Institute for Health Improvement (IHI) in 2007 as part of the Quadruple Aim concept of healthcare improvement (Bodenheimer & Sinsky, 2014). The original Triple Goal evolved to become the Quadruple Aim as physicians' well-being became a national concern and a priority for the healthcare improvement strategy. In agreement with the literature, the findings from this study indicated that a physician's well-being is a shared responsibility of the provider organization and the healthcare system (Thomas et al., 2018).

The Maslach Burnout Theory. Maslach et al. (1986) described burnout as a psychological syndrome with three dimensions involving emotional exhaustion (E.E.), depersonalization (D.P.), and reduced professional efficacy (P.E.). The study of physician burnout has long focused on the physician's lack of a coping mechanism to the workplace's relational transactional stress and hence an individual failure because of the exhaustion component that reflects an individual stress tolerance level signifying a sign of weakness (Maslach et al., 2016). This description is a social perspective of burnout that focuses on the symptoms, suggesting that burnout is a problem of ill-fitted personnel (Stehman et al., 2019). The study of physician burnout and its prevalence had mainly been within this interpersonal context of emotions rather than the cause of the response (Leiter & Maslach, 2016). For this study, the physicians believed that burnout could manifest in anyone; however, it mainly affected healthcare professionals and other service-based professions (Fowler, 2018; Maslach., 2018).

Conservation of Research Theory (COR). Hobfall (1988) described the Conservation of Relief theory with the central belief that humans are motivated to accrue and conserve resources. Hobfall (1988) argued that resource loss, resource recovery, and gain must require protection with additional resource investment (Holmgreen et al., 2017). Conservation of Research Theory (COR) is a framework for understanding the sequence of the processes involved in experiencing, coping, and eventually becoming resilient to burnout. COR is an ecological and multilevel theory explaining that stress occurs in response to circumstances threatening or depleting resources. The findings from this study revealed that the reaction to pressure varied significantly and intended to limit losses and maximize gains. The COR theory explains that burnout results from failure or threats to crucial resources such as emotional support and self-efficacy (Jaegers et al., 2019). The physicians in the study believed that the loss and depletion of resources affected them more than the resources gained and resulted in burnout (Jaegers et al., 2019).

Actors

Physicians. Extensive studies indicated that burnout is a significant driver of physician turnover and that positive correlations exist between physician engagement, turnover, and organizational effectiveness (Swensen et al., 2016). Multiple U.S. national physician studies also showed that burnout is one of the most significant factors determining physicians' intent to leave their current position and correlates to departure (Shanafelt et al., 2017b). Further confirmation was the longitudinal study of 472 faculty physicians at Stanford University, which provided evidence that the turnover rate among burned-out physician faculty members was twice that of those not burned out.

Healthcare Industry Leaders. Medical regulatory bodies' interference is a source of high levels of physician stress and emotional exhaustion, especially in physicians who have aversions to bureaucratic workplaces and style. Licensing boards perpetuate burnout through stigmatization by requiring a physician's mental health reports (Shanafelt et al., 2017b). It is a basis for the criticism that solution imperatives wrongly target functioning clinicians rather than dysfunctional organizations. Healthcare system bodies and industry leaders are also arbitrators and custodians of guidelines, without which organizations may exploit physicians. As Penwell-Waines et al. (2018) described, one of the government's responsibilities is setting the tone for physician well-being using laws, policies, and initiatives under national organizations' directions.

Healthcare Industry Leaders. The participants described healthcare industry leaders as the medical regulatory bodies from bureaucratic workplaces. They explained that licensing boards perpetuate burnout through stigmatization by requiring a physician's mental health reports (Shanafelt et al., 2017b). Penwell-Waines et al. (2018) described one of the government's responsibilities as setting the tone for physician well-being using laws, policies, and initiatives under national organizations' directions. Moreover, the healthcare system and industry leaders are also arbitrators and custodians of guidelines.

The Government. The participants explained that the government is a significant factor in the workplace environment. Peikes et al. (2019) analyzed how governments' initiatives increased physician burnout risk factors. The authors indicated that practice transformation positively correlates with deleterious physician effects. Although the practice specialty or context of participation is essential, practice transformation initiatives for care delivery improvements require intensive work, especially when the necessary resources are missing. Changes involving cultural shifts, control, and additional administrative tasks add to physicians' burden, stress, and

job dissatisfaction, especially in the short run. The Comprehensive Primary Care (CPC) initiative by the Centers for Medicare and Medicaid Services (CMS) test carried out in 2012-2016 in seven U.S. regions in partnership with 39 private and public payers to explore physicians' freedom of care delivery is an example. According to the authors, this evidence highlights the opportunities for transformation initiatives to streamline administrative work and reduce burnout. The study showed high physician burnout in the first and last years of the project from participation fatigue, loss of control, and increased paperwork.

Constructs

Turnover rates. Physicians reportedly exited medicine to pursue other careers, with intention rates positively correlated to burnout (Olson, 2017). Policy reports, such as those commissioned annually by the Association of American Medical Colleges (AAMC), have predicted dire provider shortages due to this attrition for the last fifteen years (Morgan, 2019). One of the most frequent reasons is the cost-cutting changes in healthcare that compounded the workload and, in turn, created a cycle of physician shortages (Grow et al., 2019). Other repercussions included productivity loss through physician turnover, early disengagement, and suicide (Han et al., 2019; Vogel, 2018). One of the most significant consequences of the prediction is increased burnout among the remaining working physicians and the cycle perpetuation. Furthermore, when physicians reduce work effort to control burnout, they often lose control over their workload, leading to further limited access to care (Dyrbye et al., 2017).

Physician Supply. The net supply of physicians, which is a necessary consideration for strategic planning, is negatively affected. Replacement costs, lost income, and services not rendered constitute a heavy price tag on the health system with numerous consequences (Earle, 2017). Furthermore, there has been an increase in physicians employed in hospitals and large

healthcare organizations. The shift is significant because burnout increases healthcare costs, resulting in physician shortages through the loss of physician solo practices and ownership dynamics changes. Healthcare organizations with 3,000 employees will save an estimated $1.3 million yearly by reducing employee turnover by as little as one percent (Fibuch & Ahmed, 2015).

Patient Outcome. Scholars have predicted that physician burnout complications will continue to unfold if no meaningful interventions exist. It may also spiral out of control because it is not an end-state phenomenon (Williams et al., 2020b). The literature stated that a significant impact arose from the emotional exhaustion (E.E.) burnout dimension because depersonalization and lack of professional accomplishment manifested in fewer results (Williams et al., 2020b). In alignment with the literature, the participants expected that the implications of these results jeopardized the quality of care, lowered patient satisfaction, and produced medical errors, which increased the likelihood of malpractice suits against them (Rather et al., 2018).

National Healthcare Outcome. Empirical studies showed that the problem of physician burnout required governmental interventions because of the severe consequences (Williams & Moser, 2019). Furthermore, physician burnout in a rapidly changing healthcare environment indicates that the government must systematically alter the course. Higher patient referrer rates are commonplace among burned-out physicians. The cost of hiring, training, and productivity losses associated with replacing physicians eventually affects national healthcare costs.

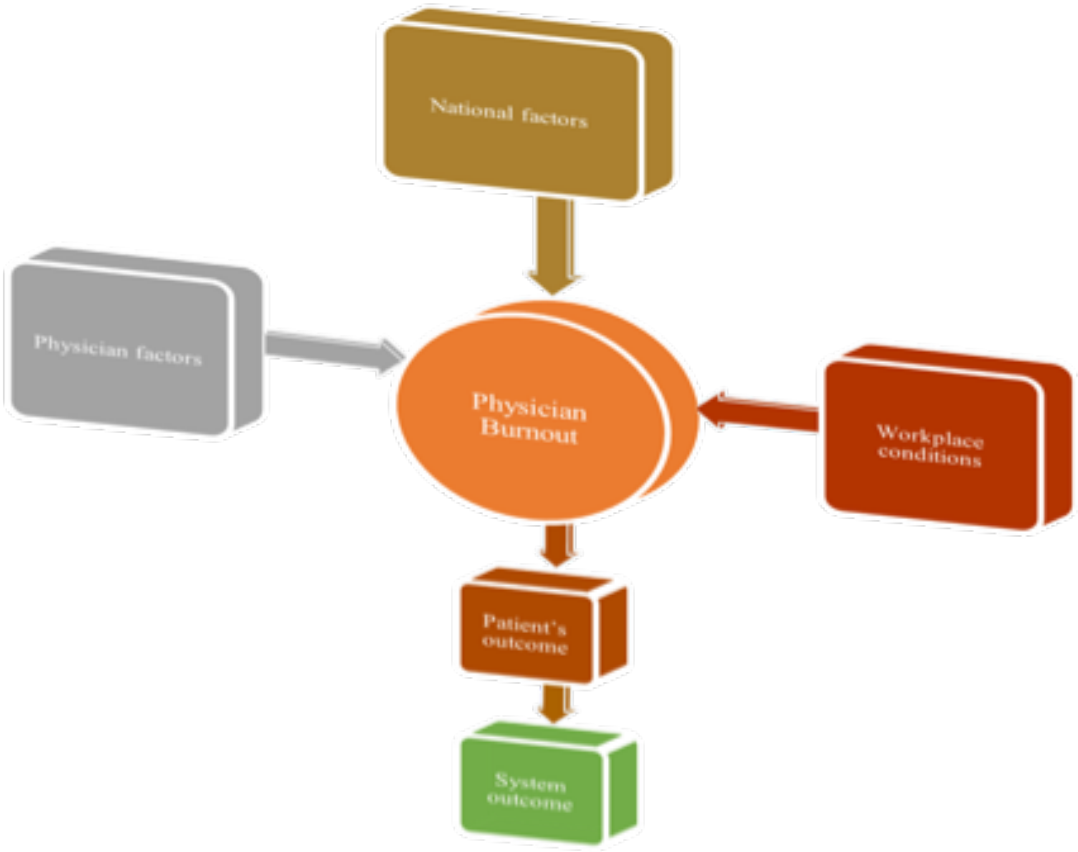


Figure 2. Relationships Between Concepts

Note: This original figure was created by the researcher and showed the relationship between concepts required for understanding physician well-being. The data collected was from *Executive leadership and physician well-being: Nine organizational strategies to promote engagement and reduce burnout* by Shanafelt, T. D., & Noseworthy, J. H., 2017, pp. 129. Copyright by Mayo Clinic Proceedings.

Relationships Between Concepts, Theories, Actors, and Constructs

Physicians endure significant pressures, especially as consumer-patient rights awareness increases (Sookhak et al., 2019). Although this study focused on the workplace condition contribution to burnout, how it increases physician attrition, its effects on recurring physician shortages, and the direct effects on physicians, organizations, and the healthcare system. However, when combined with the government's strict regulations and other regulatory

authorities, challenging workplace conditions became the negative inputs into the individual's coping reserve, triggering burnout among physicians (Shanafelt & Noseworthy, 2017). Physicians also complained that the scope of their responsibilities has increasingly drifted away from caregiving to documenting (Agarwal et al., 2020).

Focusing on the physician's well-being, the organization is responsible for designing and infusing positive inputs such as psychosocial support, health and social activities, and intellectual stimulation for morale-boosting, which help boost the dwindling coping reserves. The organization and the healthcare system also must teach safe workaround techniques and equip physicians with other types of self-calibration support tools that increase coping abilities and improve resiliency (Skillman et al., 2017). Physician well-being requires that the hospital design shifts so that the workload distribution is even during peak operations. Workload imbalance is detrimental to physicians and patients during burdened work shifts because essential components of healthcare organization performance, such as team identity and professional role clarifications, receive less attention in the absence of a deliberate and sincere supportive work environment (Bradley et al., 2017). The well-being theory also encourages shared responsibility and empathy for physicians. It recognizes that the medical and healthcare professional is inherently troubled with highs and lows, and such a physician will benefit from insights.

Summary of the Research Framework

The conceptual framework included physician burnout, physician shortages, and physician well-being. These essential concepts helped to understand and highlight the significance of burnout among physicians. The physician shortages concept is also discussed as a crucial emphasis to echo the calls for serious burnout intervention as the syndrome's fallout continues (Yates, 2020). Additionally, the framework emphasized the importance of physician

well-being because of its multi-dimensional positive effects. Rather than accept the label and stigma of burned-out, most physicians would continue working. Thus, it is notable that a physician burnout study framework included physician well-being (Shanafelt et al., 2017b).

Definition of Terms

Burnout Syndrome (Burnout). Progressive, job-related, prolonged stress exhibited by physical and emotional exhaustion, depersonalization, and personal achievement loss often lead to career failure (Moss et al., 2016; Nunn & Isaacs, 2019).

***Emotional Exhaustion*.** The stress of providing care for too long and is the most dominant form of burnout (McFarland et al., 2019b).

Depersonalization. The condition of an alteration in self-perception and a sense of detachment from one's job (Sierk et al., 2018).

Decreased Sense of Accomplishment. A lack of control or job satisfaction (Lacy & Chan, 2018).

***Healthcare Professionals*.** Practitioners trained to provide direct or indirect healthcare services (i.e., physicians, physician assistants, pharmacists, respiratory therapists, nursing professionals, and allied health professionals) involved in health maintenance through studying, diagnosing, preventing, and treating physical and mental illnesses and injuries (WHO, 2010).

Healthcare Organization. Organizations established to deliver healthcare services to people in the U.S. (i.e., private or public hospitals, clinics, clinics, and long-term care facilities) (Ratnapalan & Lang, 2020).

***Healthcare Provider*.** Frontline caregiving personnel such as physicians, physician assistants, and nurse practitioners.

***Stress*.** Stress refers to any foreign agitation or disturbance to a person's optimal homeostasis (Sies et al., 2017).

Well-being. The interconnected dimensions of enhanced physical, mental, and social health conditions (Shanafelt & Noseworthy, 2017).

Work Engagement. A beneficial work condition in the absence of burnout. “Both burnout and work engagement are associated with one’s functioning at work” (Loerbroks et al., 2017).

Assumptions, Limitations, and Delimitations

This section will discuss the assumptions, limitations, and delimitations identified for this study. The assumptions outlined for this study were within the researcher's control and did not exist outside the research problem. On the other hand, the limitations discovered by the researcher were possible weaknesses outside the researcher's power. Moreover, the delimitations identified for this study were embedded characteristics that limited the study's extent and boundaries.

Assumptions

The following underlining assumptions were essential to understanding this study. First, the researcher assumed that all data accurately represented the physician's experience and not anyone else's. The researcher accepted the survey responses without any additional corroboration. The physician's experiences, feelings, and emotions are personal and could result in stigmatization in a study, which exposes their vulnerability. Study participants were guaranteed anonymity, and the questionnaires carried no identifying information to mitigate falsehood risks (Leedy & Ormrod, 2019). Second, this study assumed that the workplace conditions are similar among different healthcare organizations within Maryland state and the

immediate environment. Furthermore, funding mix and resource allocation follow the same criteria, such as bed capacity and the diagnosis-related groups (DRG) payment mechanism, which are uniform in similar healthcare settings. Third, this study assumed that specific physician-focused resources and infrastructures (i.e., medical scribes and structured protocols) similarly affect the physician's stress levels (Gidwani et al., 2017).

Limitations

The first limitation was that this study focused on the workplace conditions affecting burnout prevalence in Maryland within the selected framework. This study did not consider the possible role of other workplace-related conditions that physicians had not experienced or reported (Montgomery et al., 2019). Additionally, this study recognized that the effects of the ongoing COVID-19 pandemic highlighted physician burnout in the U.S. The country suffered the most significant consequences of the virus pandemic. Hospitals were vulnerable as the outbreak may have contributed to resource strain, which may inadvertently increase physician burnout prevalence (Moazzami et al., 2020).

The second limitation is that the study surveyed only primary care physicians who were not directly involved in caring for COVID-19 patients. Due to the ongoing Covid-19 pandemic, some effects may be only situational and not necessarily the norm. The study report detailed the experiences that may include the COVID-19 pandemic when necessary. The researcher advised the physicians that the study excluded experiences during the COVID-19 pandemic but would briefly touch on a physician's routine burnout experiences from the period before and during the COVID-19 outbreak. The third limitation was the limited patients' health literacy levels and the community's care-seeking habits. Glassman et al. (2019) suggested that both factors affect healthcare resource utilization. The researcher later reported this as a unique population or

service location characteristic, which may not be generalized. Furthermore, the findings may contribute to the study's robustness regarding how this community influenced workplace conditions.

Delimitations

The researcher identified three delimitations for this study. The first delimiting factor was the healthcare workplace and the geographic area of Maryland. This study used online questionnaires, surveys, and in-person interviews to answer the research questions, and the findings may be generalized to all hospitals in the United States. Second, this study did not extend to other burnout factors beyond workplace conditions. Burnout resulted from untreated work-related, but research revealed that burnout might sometimes confuse other psychological disorders such as depression. Last, this study is limited to physicians whose stress is work-related.

Significance of the Study

This study focused on workplace conditions and explored the prevalence of physician burnout, resulting in potential physician shortages. This study addressed the gaps in the literature by increasing the awareness of burnout and the call for better management. Moreover, this study will benefit the business and the healthcare sectors by institutionalizing well-being promotion strategies as quality assurance measures (Panagioti et al., 2017). Healthcare leaders and practitioners are responsible for public health and wellness at a reasonable cost, including minimal legal risks. From a business perspective, burnout prevention and management are critical cost-containing initiatives that reduce organizational pressures and may conflict with the physician’s interest in workplaces. Conflict prevention is essential because healthcare providers may have multiple responsibilities as managers, unit leaders, researchers, and college professors.

Additionally, this study integrated Biblical principles applicable to issues found within a healthcare setting.

Reduction of Gaps in the Literature

There are extensive burnout studies as a part of the healthcare improvement strategy and human resource development and improvement efforts. These studies differ in dimensions, and few exist on workplace conditions as the significant contributing factor. Past studies on workplace conditions mostly portrayed individual characteristics as the precipitating factor; hence many other studies on resilience interventions for the physician (Epstein & Privitera, 2016). Furthermore, the U.S. national healthcare has echoed the calls for the importance of physician well-being assessment. Rotenstein et al. (2018) noted that there needed to be a consensus on the definition of burnout and that each facet should be appropriately identified. The findings from this study may help reduce the gaps in the literature on burnout identification, definition, and quantification (Alderwick & Gottlieb, 2019). Furthermore, the knowledge obtained from the outcome of this study may contribute to health education programs for healthcare improvement to be more holistic.

Implications for Biblical Integration

This qualitative multiple-case study integrated a Biblical perspective on burnout amongst physicians as they strived to provide comfort and care. Bergquist and Muira (2011) indicated that in human service occupations, practitioners have lifelong ambitions of healing and comforting the sick without any conscious reason. Humans are not immune to burnout, and stressful situations are part of the pitfalls of life that may challenge our faith and keep us from trusting God. Nevertheless, it is a faithful act to recognize God's interest in protecting us when we are experiencing challenging circumstances. The scriptures teach us how to cope with stressful

situations and challenging times in the Old Testament. For instance, Jacob found quietness and safety in Bethel, where God directed him to find comfort and peace (Genesis 35:1-15, ESV).

Physicians may help burnout conditions by keeping in mind that God did not promise us a worry-free life, and he expects us to look toward him for relief when we are experiencing trials and tribulations at work. Philippians 4:6-7 explains, "Do not be anxious about anything, but in everything by prayer and supplication with thanksgiving let your requests be made known to God, and the peace of God, which surpasses all understanding, will guard your hearts and your minds in Christ Jesus," Also, according to Keller and Alsdorf (2012), work and business are vital to God. He did not create humankind for idleness, nor were we meant to be in a permanent state of stress while working. God created work to promote his agenda on earth through interactions and service to others. To this end, the relief from stress and burnout for physicians and everyone may thus reside in the realization that "work" is a significant part of Christian service and worship and, ultimately, propagates God's plan of continuing his creation on earth. Furthermore, as indicated by Bergquist and Muira (2011), mysteries are, in many ways, theological. In the human service occupations such as healthcare, the significance is that most practitioners harbor lifelong ambition of healing and comfort to the sick without any conscious reason. Jesus explained in Mathew 11:28, "Come to me, all who labor and are heavy laden, and I will give you rest."

Benefits to Business Practice and Relationship to Cognate

Lack of awareness of physician burnout may resonate in many professional human service fields and multiple facets, such as turnover and work engagement. These facts are consequential to physicians and the entire system (Shanafelt et al., 2017b). The ever-changing healthcare environment has inundated industry leaders especially with increasingly expanding

leadership roles, more stringent government regulations, and operation rules (Han et al., 2019; Rotenstein et al., 2018). Physicians' needs and support have become relegated far too long, culminating in burnout. In effect, patients and the entire healthcare system bear the fallout in obvious and many other ways that are not quantifiable. The fundamental aim of any healthcare system to provide quality care is defeated as the required partnership relationship with an efficient physician is missing in a burned-out physician.

Furthermore, the socio-economic effects of burnout continue to resonate in high healthcare costs to the system, organizations, and individuals. A steady high rate of physician burnout is a healthcare challenge that can lead to significant nationwide problems resulting in the dysfunction currently being experienced by the unpreparedness for major healthcare pandemonium. Furthermore, this study represents an additional voice to the healthcare leaders for system overhaul and public healthcare protection (Shi & Singh, 2017). To contribute to quality improvement efforts, all healthcare professionals must promote studies highlighting critical issues like physician burnout syndrome. Furthermore, any additional supporting evidence that this study may inform is vital for discussions on policy directions.

Additionally, the COVID-19 pandemic has highlighted the numerous dimensions of provider well-being and its importance, making this a national focus rather than individual improvement strategies. This study confirmed how a provider's technical skills and psychological and emotional well-being affect care outcomes. Healthcare and human resources leaders face the challenge of quality care in high staff turnover times, which affects the physician's performance as they experience burnout, and their morale diminishes.

Summary of the Significance of the Study

This qualitative, multiple-case study explored workplace factors contributing to physician burnout in Maryland. This section detailed the significance of the physician burnout problem, the gap this study aimed to reduce, Biblical integration, business practice, and the relationship the research has to healthcare. The study highlights economic and moral cases for the need to contribute to the physician's well-being by assessing the workplace conditions and how they trigger resilience outflow rather than the previous emphasis on individual factors and resilience-building, which remains ineffective as burnout worsens among physicians.

A Review of the Professional and Academic Literature

The researcher analyzed scholarly sources to identify themes in physician burnout literature, including support, criticism, and opinions. The researcher conducted an exhaustive search to find articles covering physician burnout definitions and construct, measuring tools, risk factors, and consequences within the dissertation guidelines. The review examines the general meaning of burnout, its relevance in healthcare, and its effects on physician well-being. Also included in the literature review are the systemic effects of the syndrome, as recently amplified by the COVID-19 pandemic, general workplace literature, workplace effects on resilience, work-life management, and how physician burnout affects physician supply. Finally, as a component of the quadruple healthcare goal of the U.S. government, the physician well-being challenge is a fundamental healthcare problem that adds to the urgency for interventions that merit review. The researcher reviewed scholarly journals using Liberty University's library databases comprised of: (a) ProQuest, (b) ScienceDirect, (c) Psychology Database, (d) Ebsco Host, and (e) Google Scholar to locate relevant articles.

Business Practices

The U.S. healthcare system is a vital part of the economy, and significant public policies address healthcare reforms (Blumenthal et al., 2020). However, it was considered one of the most expensive yet the least effective among the developed economies worldwide regarding care outcomes, clinical safety, and cost containment. Contributing factors varied widely depending on the framework, including access, delivery, and cost (Ellner & Phillips, 2017; Kravitz & Feldman, 2017; Marjoua & Bozic, 2012). Most healthcare researchers agree on this dire U.S. healthcare system situation. Nevertheless, most studies focused on the commodity nature of healthcare, the delivery disparity that has existed for over fifty years, and strategies that have made it unachievable for millions of citizens (Lipuma & Robichaud, 2020).

Analysis of the 2016 gross domestic product spending showed that the U.S. spent 17.8% of the gross domestic product (GDP) on healthcare, higher than other industrialized economies, whose spending ranged from 9.6% to 12.4%, and a lesser population with healthcare insurance than these other countries. The U.S. healthcare outcomes ranked as the poorest among top high-income countries (Papanicolas et al., 2018). This dismal healthcare situation is attributable to significant factors, some of which are interconnected and have roots in the American social and economic belief system of market justice's conservative principles (Garson, 2000). Some reasons resulted from the U.S. underinvestment in social determinants of health, including studies affecting providers' well-being and being considered a priority for the healthcare sector. Finally, as the highest healthcare spender with the lowest life expectancy rate and a high disease upward trajectory, the U.S. healthcare problem included the dynamism of the tragedy of physicians' burnout (Stone, 2017).

The U.S. healthcare utilization is similar to those of other developed countries such as the United Kingdom, Canada, and Japan, while the administrative such as those involving planning and managing, are higher (Papanicolas et al., 2018). With service price and intensity accounting for more than 50% of the costs, many studies have also analyzed the enormous financial costs of physician burnout as a significant care cost driver in the entire healthcare system. Furthermore, the high costs justified investing substantially in reasonable studies and interventions, as most studies remained misunderstood (Han et al., 2019). The U.S. healthcare system is also highly influenced by several external factors, which include politics and profits. Therefore, motivations to meet performance targets are increasingly more vital than the willpower of a physician.

Burnout is a workplace stress phenomenon common among human service professionals (Stehman et al., 2019). It is characterized by overly complex symptoms related to job conditions that had always existed before Freudenberger (1974) used the term to describe prolonged job-related stress. The initial burnout translation described an erosion of the human soul, values, dignity, spirit, and will (McFarland et al., 2019a). The description included persistent and chronic exposure to occupational stress and psychological syndrome with three dimensions: (a) emotional exhaustion, (b) depersonalization, and (c) a feeling of reduced personal achievement. The rapid societal transformation festers the condition from an industrial to a service economy, resulting in physicians' psychological pressures (Verkuilen et al., 2021).

Maslach et al. (1986) used the term to describe a psychological syndrome with three dimensions: Emotional exhaustion EE, depersonalization DP and reduced professional efficacy PE. The study of physician burnout has long focused on the physician's lack of a coping mechanism to the workplace's relational transactional stress and personal failure because of the exhaustion component that reflects an individual stress tolerance level signifying a sign of

weakness (Maslach et al., 2016). This description is a social perspective of burnout that focuses on the symptoms, suggesting that burnout is a problem of ill-fitted personnel (Stehman et al., 2019). The study of physician burnout and its prevalence has been within this interpersonal context of emotions rather than the cause of the response (Leiter & Maslach, 2016). Burnout can manifest in anyone (Fowler, 2018). However, it most commonly affects human service professionals, such as healthcare and other service-based professions (Maslach, 2018).

The Problem

The general problem addressed was the prevalence of physician burnout, resulting in potential physician shortages. The issue of physician burnout affects the healthcare system, healthcare organizations, and physicians. It contributed to physician attrition through suicide, job disengagement, early retirement, and reduced clinical hours (Dewa et al., 2017; Hasan et al., 2019). Additionally, burnout is responsible for ongoing faculty physician shortages, impeding medical education, research, and the supply of newly trained physicians (Nassar et al., 2020). Furthermore, the U.S. estimated $4.6 billion annually in productivity loss stemming from physician burnout (Han et al., 2019). Studies showed other consequences, such as increased medical errors, sub-optimal care quality, and adverse patient outcomes. Those consequences directly affecting physicians include alcohol dependence, drug abuse, addiction, absenteeism, low productivity, and mental illnesses (Dyrbye et al., 2018; Mull & Bowman, 2020). Burnout studies have been physician-centric, often citing physicians' coping mechanism failure, emotional intelligence, and physical health, which are inversely related to burnout, and physicians' age and experience as significant contributors. However, emerging studies show that workplace conditions contribute significantly to physician burnout (Epstein & Privitera, 2016; Gleason et al., 2020; Iorga et al., 2017; Kim et al., 2020; Yates, 2020). The specific problem

addressed was how potential workplace conditions affect physician burnout in Maryland State, resulting in physician shortages (Colgan, 2021; Firew et al.,2020; Kung et al., 2019).

Concepts

The Burnout Dimension Concept. Physician burnout results from any of the three dimensions of Emotional Exhaustion (EE), Depersonalization (DP), and a loss of sense of Personal Achievement (PA) (Gregory et al., 2018). Sufferers have no escape routes as the condition weakens values, dignity, spirit, and will (McFarland et al., 2019a). The emotional exhaustion subdomain comprises nine items for a total score range of 0–54. The depersonalization subdomain has five for a score range of 0–30, and the personal accomplishment domain consists of eight items for an entire score range of 0–48 (Mikalauskas et al., 2018). Although the recommendation is for reporting the quantitative totals where possible, normative-based score classification into tertials is also acceptable (Dyrbye et al., 2018).

Table 1

Maslach Burnout Inventory Subscales: Internal Consistency and Normative Score

	A	High	Average	Low
Emotional Exhaustion (EE)	.90	≥27	17-26	0-16
Depersonalization (DP)	.74	≥13	7-12	0-6
Personal Accomplishment (PA)	.81	0-31	32-38	≥39

(Mikalauskas et al., 2018)

Although the most widely used burnout screening tool, the MBI-HSS remains controversial because of its ambiguity. The instrument also discriminates between sufferers and non-sufferers, contributing to the research problem (Grow et al., Patel et al., 2019; Rodrigues et al., 2018). Additionally, the ascribed confirmation scores in each of the three subdomains

potentially mislead the physicians into believing they are afflicted, which risks becoming a self-fulfilling prophecy. Furthermore, there is no gold standard for interpreting the MBI normative scores. Rotenstein et al. (2018) indicated that studies using the instrument are heterogeneous due to conceptualization and burnout measurement flaws. For example, some writers considered that burnout occurred when all three subscales existed, while others believed that a high score in any of the three subscales constitutes burnout in either the Depersonalization (DP) or Emotional (EE) subscales (Mikalauskas et al., 2018).

The shortcomings and unreliability of the MBI lead to the development of some other similar tools such as the Burnout Measure, Shirom-Melamed Burnout Measure (SMBM), Oldenburg Burnout Inventory, Copenhagen Burnout Inventory, Gillespie-Numerof Burnout Inventory, the Tedium Measure (Bianchi et al., 2018; Seidler et al., 2014). However, there are disagreements concerning the underlining signs and symptoms and their measurements. In addition, the absence of unique biomarkers and the nature of the diverse inventories of different tools, identifying various manifestations, contribute to the fuzziness. Brindley et al. (2019) also critiqued the Maslach Burnout Inventory (MBI) screening test to focus on the individual's response rather than on issues such as the response triggering stimuli. They said this screening is subjective, and replacing it with a systemwide alternative is better for the triggers' effects. Another criticism of the MBI is that it fails to consider organizational factors such as legal risks, workplace collegiality, and the physician's perception of stimuli as threats or opportunities. Therefore, clinical observation may be best to determine what constitutes burnout, and most importantly, interventions should be individual-specific (Brindley et al., 2019; Roteinstein et al., 2016).

Emotional Exhaustion (EE). Emotional exhaustion is the most analyzed burnout dimension because sufferers most often describe it. EE is strongly associated with work-life conflict and results from medical practice demands (Lee et al., 2013). It occurs when a physician tactically detaches themself from the patient. EE occurs when the physician is stressed to the point of inability to rebound and, presumably, has nothing else to offer (Brower & Riba, 2017). Historically, it is considered the most dominant and widely studied burnout dimension (Bianchi et al., 2018; West et al., 2018). It correlates well with depression, confusing burnout with depression (Wurm et al., 2016). Although most burnout authors agree that exhaustion is more predictive of burnout, other burnout measurements are still associated with different conceptualizations of the syndrome.

Depersonalization (DP) Concept. Depersonalization means distancing oneself from the care recipient, treating them as objects or numbers rather than people (Ruisoto et al., 2021). Burned-out physicians display this through decreased empathy and increased indifference to and ignoring patients' needs. In a study involving many organizations and occupations, depersonalization was consistently an immediate reaction to an already existing emotional exhaustion feeling and is associated with 4.5-fold increased odds of low patient-reported satisfaction in patient safety and professionalism (Tawfik et al., 2018). The supporting argument for the three popular dimensions is that burnout is not dichotomous, although it manifests differently in different physicians. The burnout-resilience balance is a more meaningful analysis because diagnosing is complex, varies in representation, and may harm rather than help intervention. The authors support the notion that healthcare surveillance increases the depersonalization subdomain of burnout.

The Reduced Sense of Personal Achievement (PA) Concept. It is a loss of a sense of performance and detachment from the job due to excessive emotional exhaustion (Maslach, 2018). Initially, the physician may exhibit negativity and hostility, but this is a self-protection tactic, resulting in a self-fulfilling failure. The PA is differentiated from EE and DP dimensions because it arises from inadequate work resources, while the other two subdomains result from the overwhelming workload and social conflict. It can also trigger both (Maslach et al., 2001). The PA dimension has a more complicated relationship with both the EE and DP dimensions because it can be a function of EE or DP or a combination of both EE and DP, which makes it challenging to be effective in a demanding job setting (Kosan et al., 2019; Maslach et al., 2001).

The Individual Factor Concept. Figure 1 depicts the different contributory responsibilities to physician burnout in the U.S., and figure 3 explains how the actors contribute. Literature abounds on physician burnout drivers, in which the most common categorization of the drivers is the individual. Much attention is also paid to individual factors, especially resilience capability. Ingrained early in training, the pervasive culture of self-sacrifice often drives physicians to surrender their well-being for the benefit of others (Baiu et al., 2020). Emerging studies point to the increasing roles of healthcare organizations and the employer's higher responsibility for prevention and management. Minimal information exists on the healthcare system's contributions. As shown in figure 3, Penwell-Waines et al. (2018) recognized the multi-factor contributors to physician stress, translating to multi-level involvement in prevention and management.

Physicians' demographics, such as age, gender, and experiences, are significant well-being and burnout determinants (West et al., 2018). Several proposed themes with clusters of solutions exist in the literature, most of which are impractical and can only bring an additional

burden to physicians (Hoffman, 2019). Numerous authors and healthcare leaders still consider physician burnout risk factors, mainly an individual's predispositions (Moss et al., 2016; Yuguero et al., 2017). On the other hand, the physicians consider the burnout term derogatory to suggest their failure. Physicians believe the modern healthcare system is responsible for eroding physicians' motivation through what they refer to as "moral injury" (Rozario, 2019). This conclusion arises from the overwhelming expectation to surpass the unrealistic manufactured modern medical practice expectations. Although, issues such as the internal traits of compulsiveness, self-denial, feeling of guilt associated with adverse events, and delayed gratification often make physicians pre-disposable to burnout (Gazelle et al., 2015). Also, characteristics such as extrovert personality traits may affect information processing and meaning-making in the work environment and the individual emotion regulation strategies adopted by individuals (Yang et al., 2018). After years of rigorous medical training, physicians pride themselves on high resilience to overcome emotional and physical challenges (Rozario, 2019).

Organizational Factor Concept. Favorable workplace conditions significantly contribute to well-being and are independent of other factors. One of the problems with resilience-building often promoted as individual physician responsibility is that short-term coping strategies may fail in the long term and contribute to stress if extenuating conditions remain, such as those associated with the organization (Costa & Moss, 2018). The authors believe individual-focused interventions are essential but insufficient unless combined with team and system interventions. Some of the suggested coping strategies are unhealthy and can result in long-term negative consequences, even when helpful in the short term. Furthermore, some writers believe that burnout forces those clinicians already suffering from stress to develop

unhealthy coping strategies such as social isolation, suppression, depersonalization, and substance abuse.

Issues such as recovery and resting strategies are personal responsibilities. According to proponents of physician individual resilience theory, the inability to achieve these is considered a character flaw that increases physician's stressors. However, a Rand Corporation physician burnout study in England found that a physician's primary stressor is the inability to provide patients with quality care (Hofman et al., 2018). The unfair weight of managing universal healthcare through rationing and rationalizing care access is responsible (Rozario, 2019). Physicians cite poorly designed electronic medical records and increasing paperwork, which requires more time away from patients, as the physician's stress. Other stress sources include the care quality score requirements, medicolegal jeopardy, administration demands, and regulatory college requirements. Physicians described the modern healthcare system as an intense business environment that has turned them into financial gatekeepers, even though physicians possess no funding or business controls.

National Factor Concept. The roles played by systemic structures and factors, such as national healthcare initiatives and national primary care quality improvement strategies, sometimes create long-lasting problems for physicians (Patel et al., 2018). Literature searches on the systemic factors contributing to physician burnout found minimal information during this research. Literature analysis of systemic issues is often related to organizational factors. However, it is still necessary to determine what systemic factors may contribute to the prevalence because the government sets the tone for physician well-being using laws, policies, and initiatives through national organizations' directions Penwell-Waines et al. (2018). In addition, successful interventions must include a wide range of causes and conditions

(Wiederhold et al., 2018). Challenges such as external control, national program funding, and local career development opportunities are issues better tackled by industry and national healthcare leaders. Besides, most authors believe systemic factors result from outdated regulatory requirements, which overburdens physicians with more administrative tasks.

Elevated levels of emotional exhaustion are caused by the medical regulatory bodies' interference, especially in physicians who dislike bureaucracy, and are often a source of physician stress. Licensing boards perpetuate burnout through stigmatization by requiring a physician's mental health reports (Shanafelt et al., 2017a). It is a basis for the criticism that solution imperatives wrongly target functioning clinicians rather than dysfunctional organizations. Healthcare system bodies are also arbitrators and custodians of guidelines, without which organizations may exploit physicians. As Penwell-Waines et al. (2018) described, one of the government's responsibilities is setting the tone for physician well-being using laws, policies, and initiatives under national organizations' directions.

Peikes et al. (2019) analyzed how governments' initiatives increase physician burnout risk factors. The authors indicated that practice transformation positively correlates with deleterious physician effects. Although the practice specialty or context of participation is essential, practice transformation initiatives for care delivery improvements require intensive work, notably when the necessary resources are missing. In addition, changes involving cultural shifts, control, and additional administrative tasks add to physicians' burden, stress, and job dissatisfaction, especially in the short run. Cho et al. (2020) also acknowledge the systemic risk factors to explain that one way of ensuring physician well-being is recognizing that disability is not a presentation of inability and advocating for reasonable strategic accommodation for physicians with mental health conditions. The idea found support in 2018 when the American

Medical Colleges (AAMC) outlined the necessary structural accommodations for physicians with past mental health conditions (AAMC, 2018). Adjustments suggested included eliminating irrelevant state licensing probing of past mental health treatments, and a comprehensive approach will make several other similar accommodations unconditional. The authors acknowledged the limitation of this becoming a cure for physician burnout, but they believe it is a positive step in reducing stigmatization. Structural changes like this normalize mental health care, encourage burned-out physicians to seek care, and encourage aspiring physicians to practice medicine.

Other detrimental issues affecting physician well-being include the system changes designed to increase healthcare coverages and improve efficiencies that substantially increase workload. Problems such as the increasing partisanship of the U.S. healthcare system discourage stakeholders' input, and rapid access to resources is lacking (Squiers et al., 2017). Other concerns, such as the productivity-based compensation system, quality-score pressures, and regulatory college requirements, are significant pressures on physicians (Rotenstein et al., 2018). The change to the 10th edition of the International Classification of Diseases (ICD-10) and rapid implementation of regulations resulted in physician shortages and further burdened the system. Ultimately, they result in physician burnout (Shanafelt &Noseworthy, 2017).

Figure 3. Systemic Contributions to Physician Burnout

(Penwell-Waines et al., 2018)

Literature has established burnout characterization by the uncertain prognosis and symptom specificity (Epstein & Priviera, 2016). A substantial part of the problem is that interventions are often reduction attempts rather than root cause exploration (McFarland et al., 2019a). A common ground stating the understanding and framework necessary to identify causes and study the disease's rates and prevalence was missing in the classification of burnout (Heinemann & Heinemann, 2017). The definitions are widely varied, and the threshold of the problem is unstable (Epstein & Privitera, 2016). Although confusions over health terminologies are common, misunderstanding of meanings could have implications for healthcare leaders and organizations to design interventions (Alderwick & Gottlieb, 2019).

Moreover, greater clarity could promote better understanding and advance policies and practices. Most hospitals, medical centers, and healthcare organizations operate under the

framework that burnout, physician work engagement, and satisfaction are the individual physician's sole responsibility. This erroneous belief is that improvement efforts wrongly focus on narrow solution pathways, such as resilience boosting and training, which lack meaningful progress. Such strategies neglect the workplace conditions that are the primary drivers of physician burnout (Shanafelt & Noseworthy, 2017). This approach added to physicians' skepticism of management's efforts to address the problem. Casting the issue as a personal problem morphed into many other issues, such as stoicism and physician substance abuse, to avoid stigmatization (Maslach, 2018; McFarland et al., 2019a).

Furthermore, there is no standard criterion for describing a physician's workplace-related conditions (Lin et al., 2019a). Scholars argued that the term "burnout" is vague and described as clinically groundless, suggesting that the term be abandoned for a better description because studies describing physician well-being challenges lacked rationale for the criteria (Bianchi et al., 2017; Heinemann & Heinemann, 2017; Verkuilen et al., 2021). Rotenstein et al. (2018) contended that burnout studies varied considerably and used approximately 142 unique definitions, indicating many differences in conception. Such variability existed among those studies that used the same measuring instruments based on the Maslach Burnout Inventory (MBI). The definitions, consensus, and measurement standardization are necessary to optimize the treatment strategies.

Healthcare researchers have adopted the definition of burnout as a syndrome characterized by the three dimensions of emotional exhaustion, depersonalization, and decreased professional efficacy (Maslach et al., 2001). These related terms distinguish burnout from depression, which often refers to emotional exhaustion because it is the most common dimension among physicians (Rotenstein et al., 2018). Although, Maslach (2018) theorized that burnout

assessments include Emotional exhaustion (EE) and Depersonalization (DP), the experience of distress is the critical component of the burnout experienced by physicians. Although suicide is the ultimate tragic outcome of burnout leading up to suicide, studies reported long-term stress, physical exhaustion, sleep deprivation, disruption to personal life, the feeling of failure, depression, anxiety, and other somatic health problems (Maslach, 2018; Stehman et al., 2019).

Several definitions exist for well-being and burnout terms in the literature, but there are no widely accepted conceptual models of burnout risk factors, making it challenging to establish foundational theories for intervention, solutions, and pathways for further research (Brigham et al., 2018). The argument is that it is difficult to distinguish between burnout sufferers and those suffering from other mental disorders, such as depression, because of the absence of a consensual identifying impairment, making burnout challenging to diagnose (McFarland et al., 2019a). Necessary diagnosis criteria such as symptoms for the clinical assessment, severity measurement, duration, and frequency of the exhibited symptoms are not easily obtainable (Mirkovic & Bianchi, 2019). The construction of a burnout case is undefined, and establishing the syndrome's prevalence level is problematic.

Earlier attempts at a uniform construct and definitions raised questions that remain unanswered. It is also a significant task as the criterion for research and policy formation toward interventions is affected by the term's numerous translations. Brindley et al. (2019) agreed that the problems with physician burnout commence from the construct stage. They listed several issues related to the screening, the misconceptions, the diagnosis, and the predictors' fluidity. The scholars contended that the term burnout is blame-finding and that concepts such as Occupational Stress Injury (OSI) covering a wide range of medically focused are better

alternatives. Nevertheless, an indication that the condition is acquired and not a shortcoming of the sufferer.

Heinemann and Heinemann (2017) argued that the “burnout” term is old, concocted, and fictitious, with a distorted understanding not designed for real-world concerns. The researchers claimed that the studies utilize the same unpopular and flawed constructs to identify study participants. Despite the associated problems with the burnout construct, the importance of physician well-being remains without ambiguity, and the discussion continues to be relevant. Whether it is considered a form of overlap of depression, or a distinct mental disorder, the fact remains essential. The need for meaningful intervention began with an appropriate and concise definition and classification. The associative problems with the term may seem minor, but when considering the complicated issue of burnout, the solutions begin with the assigned word (Brindley et al., 2019). The medical term should be more meaningful and tailored with a push toward personalization. Interventions must also include fostering healthy work environments rather than criticisms presented by such terminology. The authors suggested a total modification of the term to encompass screening tests and intervention because of the obsolescence of the current testing methods. Furthermore, work's natural highs and lows should be recognized and combined with attainable performance expectations to solve the problem. Also, greater clarity and a widely accepted construct would aid evaluation and treatment (Alderwick & Gottlieb, 2019).

Researchers claimed that approximately half of U.S. physicians experience burnout symptoms, suggesting that the problem stems from environmental factors and the care delivery system rather than the individual's elements (Fred & Scheid, 2018). Though physician-driven, conventional burnout interventions such as mindfulness techniques and cognitive-behavioral

changes had less impact on well-being efforts than organization-led methods (Zhou et al., 2020). One reason is that many interventions focus on resolving burnout instead of the causes of burnout and critical contributing factors that remain unrecognized (Hall et al., 2018). Back et al. (2016) concluded that enduring interventions should involve setting new parameters by the system and healthcare organizations. These interventions recognized the salient psychosocial burnout risk factors and threats to well-being. Moreover, these factors are related to quality and safety culture, including the amount of time spent with each patient, professional development, and those classified under health and safety, such as workplace violence (Lee et al., 2013).

Awareness. Although awareness is on the rise, there is a long-standing indication that the physical and psychosocial work conditions present a more decisive burnout causative factor than the personal physician factor. Escribà-Agüir et al. (2006) suggested that workplace issues such as psychological demand, low level of job control, and social support increased the risks for emotional exhaustion (EE) core burnout dimension. However, the U.S. is entering a time of physician well-being renaissance engineered by increased publicity, research, and awareness. The challenge remains that burnout is dynamic as medicine itself, and reactive solutions would always lag. In addition to revenue losses, organizations had moral and ethical obligations to commit to physician well-being (Shanafelt et al., 2017a). However, organizational response to the problem has been minimal. Shanafelt et al. (2017b) identified two reasons for the lukewarm attempts at resolving the issue. The first is the lack of awareness by decision-makers about the extent and the various forms of the associated economic costs. The other reason relates to the uncertainty surrounding the efficacy of any intervention.

Many organizations lack the awareness of remedies due to the erroneous belief that there are limited options to address the problem because it is considered a national crisis (Shanafelt et

al., 2017b). A major significance is the absence of universal burnout measuring systems and policies. The cultural shift necessary for creative and flexible shifts may be impossible until then. This gap is partly due to the failure to recognize the organizational contribution to physician stress and the required organizational-level intervention. Academic healthcare organizations contribute to the barriers through their erroneous assumption of immunity to turnover costs because of their seemingly large resident physician pool. Their confidence arose from the available collection of physician fellows ready to fill vacancies and the possible cost-saving advantages.

Like medical practice and healthcare management, burnout syndrome is dynamic (Tawfik et al., 2019). Physicians are highly skeptical and objective in their opinions due to rigorous training on innovative ideas until proven. Although burnout is scientifically a necessary part of their decision-making steps, scrutinizing minute details poses challenges in leadership situations, which require openness to ideas and emotional responsiveness. Furthermore, person-centered health care continues to gain popularity and is practiced as patient-centered because it fails to recognize the importance of the physician's well-being, which may be a consequence of the poor understanding of physician burnout's far-reaching consequences (Han et al., 2019).

Effect of Burnout on the Healthcare System. Burnout occurs in many healthcare professions, primarily physicians, nurses, and healthcare educators. It is an increasing public healthcare challenge that requires more national attention because of its growing prevalence and effects on the healthcare system (Fabio et al., 2019; Patel et al., 2018; West et al., 2018). The condition arises from direct contact with patients, some of whom are disadvantaged in many aspects of healthcare indicators, and reports indicate variable prevalence levels among different specializations. Challenges such as physical violence, verbal attacks, and threats predispose

healthcare workers to occupational stress (Elshaer et al., 2018; Gascon et al., 2013). With increasing commercialization and competition, healthcare organizations continue to expand burnout through the promotion of workers' performance incentives and profit goal pursuance, in which economic metrics remain focused on excluding workers' well-being (Maslach, 2018). These organizations practiced the modern-day form of exploitation and a business model that emphasizes financial gains as the driving force without considering human costs. The result is exhaustion, long-term stress, health problems, and loss of self-worth, which erodes some of the most intelligent humans' emotional stamina.

The excessive and lopsidedly distributed workload contributed to physicians' stress (Ilic et al., 2017). Some authors contended that employees are prone to burnout in any job type because of the work intensity and the absence of work requirements and resources, such as those psychological, legal, and emotional buffers required by physicians (Pavlov, 2016). These pressures outweigh knowledge and abilities, ultimately affecting the physician's well-being (Goldberg et al., 2020). However, increased recognition of the providers' total environment settings' importance contributes to burnout. This perspective emphasizes the social dynamic of healthcare settings.

The workplace impact on human well-being and resilience has become essential so that new research paradigms emerge, starting with evolving disciplines such as Environmental Health, Environmental psychology, Environmental Neuroscience, and Ecopsychology (Spano et al., 2020). Emerging paradigms such as Human Health and Environment Interaction Science (HHEIS) and similar discipline areas will continue to grow, focusing on health and well-being, which considers the environment an essential driver. From an economic perspective, several authors have assessed the importance of workplace conditions in different ways. A new and

growing viewpoint is the physical environment, especially the space's safety. Despite specific periods of elevated concerns for infections such as the COVID-19 and SARS epidemics, healthcare workers, including physicians, understand the high risk for disease.

The Institute for Healthcare Improvement (IHI) created the Quadruple Aim of healthcare management to replace the Triple Aim concept of public health improvement to improve the U.S. healthcare system. It was a system performance optimization and reform concept introduced into healthcare to improve the population's health through a simultaneous implementation of patient experience enhancement, outcome improvement, and per capita healthcare cost reduction (Bodenheimer & Sinsky, 2014). The Quadruple Aim became a U.S. national healthcare strategy in 2010, primarily to engage policymakers, healthcare organizations, and individual physicians to improve the healthcare systems by improving their respective goals. The guiding principles are a framework for healthcare policymakers, organizations, and physicians to tackle physician well-being, starting from medical school (Thomas et al., 2018).

Although years of medical school and training made physicians naturally resilient, there is still something said about the effects of workload on their well-being with care transformation initiatives, which often increased non-clinical work volume. For instance, Triple Aim became popular and well-accepted among healthcare practitioners. However, this resulted in increased societal expectations that contrasted widely with healthcare professional reality, as patient-centeredness exerts a toll on physicians and sets the perfect stage for burnout (Pavlov, 2016). The Triple Aim goal exposed the healthcare system to unintended consequences as it became clear that a care team’s well-being is a prerequisite for the Triple Aim's success. Thus, the Quadruple Aim resulted from the Triple Aim goals reform (Bodenheimer & Sinsky, 2014).

The 2015 Medscape survey also cited workload issues such as computerization as a significant cause of stress. Physicians with more electronic healthcare record (EHR) functions experienced the highest stress. With the original aim to ease paperwork and documentation, the EHR is a double-edged sword that has become an additional stress source for physicians. They take on the extra burden of clerical functions of billing, coding, and quality control associated with the EHR (Kroth et al., 2019). The EHR use and design factors related to information overload, system downtime challenges, and inadequate navigation knowledge increased workload. Consequently, the positive association between workload and emotional exhaustion increases the chances of emotional depletion.

Workplace conditions are comprehensive, and difficult to associate a single work-related risk element with burnout (Seidler et al., 2014). Similarly, the Job-Demand-Control (JDC) job stress model's postulation is that physician stress results from several environmental variables (Finstad et al., 2019). JDC affirms that physician well-being is affected by high job demands and low job control. The ability to moderate these adverse effects depends on the available job control. Furthermore, most burnout studies lacked depth and qualitative study's explorative characteristics due to the few study justifications that explain what constitutes burnout risk factors (Hall et al., 2018). Understanding the depth of workplace conditions will promote increased appreciation for the disconnection that occurs when the reality of medical practice falls short of the perceived higher benevolence of physician calling. Practice conditions, such as clerical duties, compound physician workloads and distract physicians from their medical practice passion. Squiers et al. (2017) referred to this as a clerical tsunami. Interns become disillusioned as they spend more time on paperwork and documentation than patient care. Even experienced physicians are becoming significantly less likely to find satisfaction in the

profession simply because of risk factors arising from increased administrative work (Squiers et al., 2017).

Measuring Burnout Levels. Physician well-being measurement difficulty leaves no standardized measurement approach and tools. Popular tools such as the Maslach burnout inventory (MBI), the Burnout Measure (BM), the Shirom-Melamed Burnout Measure (SMBM), Oldenburg Burnout Inventory (OBI), and Copenhagen Burnout Inventory (CBI) vary in their assessment of the burnout components. The user's discretion determines the choice of instrument. Many burnout controversies involve the diagnosis, as there is no single acceptable universal tool for burnout measurement. According to Panagioti et al. (2017), there are two main classifications of the studies on burnout interventions. The individual-directed intervention aims at the provider, and the organizational-directed intervention at the organization. Studies have found evidence of organizational-related factors to be the more compelling etiology of physician burnout. Physicians often work with temporary management structures rather than become part of the management decisions (Rozario, 2019). Although these issues draw attention, the problem remains that the focus often shifts back to the physician's response rather than stimuli.

Subsequently, Patel et al. (2019) believes that recognizing and measuring is one of the first steps in ensuring physician well-being and combating burnout. The absence of diagnosis and measurement criteria makes comparison impossible (Heinemann & Heinemann, 2017). In 1980, burnout research entered the empirical phase with the Maslach Burnout Inventory (MBI) designed by Dr. Christiana Maslach. The MBI is a 22-item self-reporting questionnaire addressing different stress coping mechanisms and incorporates the three dimensions of burnout (Eckleberry-Hunt et al., 2018; Patel et al., 2018). The popularity of the MBI as a measuring tool that cuts across diverse cultures and occupations led to more empirical research into burnout risk

factors (Doulougeri et al., 2016). There are presently five versions of the MBI, with the MBI-HSS version as the conventional instrument used in healthcare services, such as a physician survey to assess burnout syndrome's three components.

Physician Supply. Extensive studies indicated that burnout is a significant driver of physician turnover, and "research supports a relationship between physician engagement and turnover and organizational effectiveness" (Swensen et al., 2016). Multiple U.S. national physician studies showed that burnout is one of the most significant factors determining physicians' intent to leave their current position and correlates to departure (Shanafelt et al., 2017a). Further confirmation was the longitudinal study of 472 faculty physicians at Stanford University, which provided evidence that the turnover rate among burned-out physician faculty members was twice that of those not burned out. In addition, 26 percent of burned-out physicians had 168% higher odds of leaving their job (Hamidi et al., 2018). Furthermore, 13 percent who showed intention to disengage did so within two years compared to 10 percent of those not burned. Physicians are also leaving and partially leaving the profession as burnout coping strategies (Dillon et al., 2020).

Physician supply is affected by burnout beginning from the training period. According to Rodrigues et al.'s (2018) cross-sectional meta-analytic study, medical student burnout diagnoses are as much as 71 percent in the pre-clinical years. Burnout starts early because of the perceived professional and psychological burden as the students confront the reality of stressful work, putting others' needs before their own, and developing specific skills to cope with lofty expectations (McFarland et al., 2019a).

Theories

The Conservation of Research Theory. The Conservation of Resource Theory (COR) is a popular theoretical foundation in burnout studies. It is a framework for understanding the process of work, resilience, and stress and teaches that there are circumstances that deplete human emotional resources. It conceptualizes physician burnout as a process or a cascade (Williams et al., 2020a). It posits that workers conserve old and added resources by acquiring new ones while striving to hold on to the old ones. Also, the loss of one kind of resource increases the chance of more losses (Lheureux et al., 2016). Therefore, they adopted a strategic approach to resource conservation to ensure no losses because they become stressed and burned out in anticipation of or when resources are lost. Physicians become stressed and burned out when the job requires more than the available individual resources.

The concept of a "stress spiral" or "burnout cascade" is prevalent in the COR literature (Williams et al., 2020b). The terms describe situations when the individual cannot recover from resource loss. The theory does not indicate who is the cause of the resource loss. However, it suggests that the employee is responsible for preventing loss and resource replenishment, supporting the inherently problematic assumption of the resilience theory of burnout prevention is that of the physician (Rosenberg, 2018).

The COR posits that burnout is an end-stage phenomenon that begins with exhaustion. A gradual spiral from cumulative stress and physician burnout primarily occurs when situations get beyond control (Holmgreen et al., 2017). Physicians used these personal characteristics, such as emotions and physical and cognitive energy, as resources needed for their professional duties. Conversely, COR aligned with the assumption that physician burnout is a failure of an individual

physician unable to cope with the professional demands or lacking the resilience needed to thrive. It suggests that burnout spirals from resource loss (Lheureux et al., 2016).

The Well-being Theory. Well-being definition is comprehensive and indicative of no conceptual consensus due to the proliferation of its wide-ranging relevance across different fields (VanderWeele et al., 2020). Most of the descriptions presume that these variabilities are necessary conditions. Conditions such as well-being outcomes associated with positive environmental factors and health outcomes include positive social engagements, resilience to adverse clinical and practice developments, and overall improved effectiveness, translating to an improved care system (Corona et al., 2017; Szabo et al., 2019). There are several conceptual models for workplace well-being and related elements (e.g., burnout, engagement, resilience). The physician's well-being has become the fourth goal of healthcare and is an essential part of a physician engagement study (Anandarajah et al., 2018; Panagioti et al., 2017). The physician's well-being has become the fourth goal of healthcare and is an essential part of a physician engagement study (Anandarajah et al., 2018; Panagioti et al., 2017).

Additionally, well-being is a holistic concept encompassing mental and physical health (Hall et al., 2016). Popular well-being models result from psychological well-being, which describes the physical, mental, social, and combined well-being constructs. For example, Brady et al. (2018) identified five well-being components:

> "(1) Subjective (hedonic) well-being (life satisfaction; domain satisfactions; and a balance of positive and negative affect).
>
> (2) Eudaimonic well-being (e.g., having purpose/meaning in life; having and progressing towards meaningful life goals; mastery/efficacy, control, autonomy/self-determination, personal growth, a movement towards a full potential).

(3) Psychological well-being (e.g., positive self-regard, self-acceptance, resilience/hardiness, optimism, absence [or reduced incidence] of mental health symptoms/disorders).

(4) Social well-being (e.g., deep and meaningful human connections, positive interpersonal expectancies [including perceived available support], prosocial orientation, faith in others/humanity).

(5) Physical well-being (e.g., physical fitness [health, weight, and activity levels]; absence or reduced incidence) of illness and disease; health status above expected baselines; longevity.

Mackean et al. (2022) described the long-standing well-being characteristics of positive mental health as a combination of both eudemonic and hedonistic, an internationally agreed component of psychological illness listed in the International Classification of Diseases (ICD) Mental and Behavioral Disorders and the Diagnostic and Statistical Manual of Mental Disorders DSM (American Psychiatric Association APA, 2013; World Health Organization WHO, 2018). Eudaimonia well-being describes the universal evaluation of life satisfaction, such as purposeful engagement, the realization of personal potential, autonomy, mastery, quality relationships, and self-acceptance. At the same time, hedonism is the personal conviction of positive emotions such as happiness and positive affect.

The well-being theory appears to be popular among the models and theories of workplace-related stress. Moreover, it is a common theme across several models because well-being is the central focus (Brigham et al., 2018). Physician well-being and burnout prevention are possible when research can inform the solution. Presently, high-quality controlled studies on physician burnout and well-being are insufficient as there have been few research incentives into

the implications and determining the general financial consequences (Shanafelt et al., 2017b). The National Institute of Health should encourage grand-scale studies involving epidemiological and health-economic studies on the prevalence, incidence, and physician burnout costs. Research is required to determine effective treatment, and interventions must establish standards.

Constructs

Several constructs emerged from the physician burnout problem in the U.S. Some of these are part of explanations to understand the problem and find solutions with the system. Some of those discussed here are physician resilience, physician attrition and supply, patient outcome, and the national healthcare outcome.

Physician Resilience. Studies have mainly emphasized the importance of resilience and physician-centric interventions until recently. However, as a workplace phenomenon, workplace conditions rather than the individual are significantly more likely the causative factor of physician burnout (Yates, 2020; Kim et al., 2020). Moreover, evidence supported that the different dynamics of all factors, such as electronic health records (E.H.R), leadership, support, opportunities, and initiative, created unique environments that affect the physician's wellness. However, some authors believe in the positive effect of physician resilience on their well-being. In their contribution, Epstein and Privitera (2016) indicated that resilience and mindfulness training as an interventional strategy could help identify burnout early. It enables organizations to mitigate burnout by monitoring and informing physicians for collective awareness.

The perception is that resilience would improve well-being with organizational support and toward individual resilience reserve promotion, achievable through positive actions such as joy promotion rather than the continuously detrimental productivity focus. In addition, organizations must promote physicians' passion for medicine by affirming their values,

recognizing human limitations, and rendering self-care assistance to physicians. Community and collegiate building issues will help increase organizational and individual burnout resilience. These are essential factors to consider without a perfect understanding of such a big and impactful problem. Furthermore, this indicates that the failure of this type of organizational contribution hinges on the responsibility for the physicians' solution.

Strategies such as debriefing are coaching techniques proven to improve individuals' and organizations' performances in healthcare settings (Eppich et al., 2018). Debriefing is a post-event interactive performance feedback for clinical training purposes. It is a discussion designed to create improved strategies, especially after major technical and clinical events such as traumas. Debriefing enables clinicians to improve their technical skills through reflections on performances in a group of clinicians. Eppich et al. (2018) argued that expanding the scope of coaching to incorporate debriefing would also improve clinicians' thought-processing systems, and situation framing improves their performance. In this framework, coaching for resilience focused on physicians recognizing personal vulnerability. According to these authors, physician resilience in this framework depends on the institutional provision of resilience-fostering resources because providers cannot avoid vulnerable exposures. Consequently, increasing resilience is an organizational responsibility.

The triple-layer involvement of systemic, organizational, and individual roles in interventions is considered the most effective in achieving solutions rather than building physician resilience (Lin et al., 2019b; Stewart et al., 2019). The dynamism of the term makes resilience an all-caption umbrella for psychological and sociological concepts like stoicism. Medscape's (2019) study of 15,000 physicians surveyed across 29 specialties indicated that

physicians experiencing burnout do not seek help because it is not a physician's popular skill, and they prefer to hide this.

Workplace Well-being. Numerous descriptions of workplace conditions exist in the literature. Scholars described them as either positive or negative, representing the balance of resources available for dealing with work challenges (Wells & Klocko, 2018). A longitudinal study of the U.S. clinicians and staff in 296 healthcare sites in the Centers for Medicare and Medicaid Services (CMS) Federally Qualified Health Center (FQHC) in 2013-2014, and the Advanced Primary Care Practice Demonstration (APCPD) showed a deterioration of workplace conditions contrary to the expected improvements. Findings included a significant decline in multiple measures, including workplace conditions (Friedberg et al., 2017). Workplace conditions involving health system changes such as the electronic healthcare records adoption and exposure to alternative payment models to encourage practice transformation have significant complex effects on workflows in a stressful way, with the potential for worsening work conditions. Notably, twelve of thirteen practice culture measures declined, and reports of hectic and chaotic practice atmosphere increased from 31.6 percent to 40.1 percent.

The total psychosocial and physical work environments are among the most critical workplace issues, discrediting the possibility of individual job characteristics having a more considerable influence on stress. Failure to explore how these environmental characteristics affect well-being will diminish the effectiveness of managerial decisions. Workplace stressors extend beyond workload, making them increasingly essential considerations than ever before as burnout contributors (Yang et al., 2018). In an exploratory analysis of a 106-item survey of 781 clinician respondents in thirty California community clinics, six factors, including clinic workload and teamwork, emerged independently of the others (Friedberg et al., 2016).

A meta-analytical review of forty-eight studies involving 36,266 trainee physicians placed higher ratios on associative workplace conditions as predictive of burnout than non–workplace factors such as age and grade (Zhou et al., 2020). The findings were significant as burnout interventions often focus on modifiable factors, such as workload, with minimal attention to workplace issues, such as team collaboration, workflow, and organizational reform. Furthermore, Pagliotti et al. (2017) found that effective burnout interventions involve controllable well-being programs for better outcomes. This method would consider distinct features, such as the physician's unique healthcare setting needs.

Workplace conditions have increasingly been identified as the most significant physician stress source, making coordinated intervention strategies of the utmost importance for physician well-being. (Patel et al., 2019). Adverse workplace conditions, such as disrupted workflow and control, positively correlate to stress among physicians. Several studies cited the different intervention strategies, such as optimizing workflow redesign with the physician's involvement and interventions promoting clinical tasks while reducing administrative tasks (Wright et al., 2020). Physician burnout studies historically defaulted to physical workload concerns such as triage volume and patient visits (Linzer et al., 2009).

According to the International Labor Organization (ILO), workplace conditions include (a) the physical environment, such as the workspace arrangements and equipment layout, and (b) the psychological environment, such as the amount of control and leadership components, which include safety and dignity, all of which affects the physician's well-being (Finstad et al., 2019). The workplace environment's quality influences comfort and productivity from the organizational perspective, as revealed by office health complaints. For the past two decades, studies conducted on the workspace positively correlated with well-being and performance

(Mofidi & Akbari, 2020). Additionally, there is an increase in studies linking mental and physical well-being with environmental quality. Although individuals respond to stimuli and their surroundings, overall comfort could influence mood, concentration, and motivation to work.

There is an established link between the clinician's workspace arrangement and daily schedule, remediable working conditions, and overall job satisfaction (Linzer et al., 2017). A study of 168 clinicians established a link between job contentment and the workplace's structural and cultural aspects. Environmental issues such as work pace, crowd control, and communication are necessary environmental support actions that can affect physicians' productivity and challenge well-being, especially in a large healthcare setting. In 2019, the National Academy of Medicine (NAM) promoted the importance of a physical environment as an intrinsic element of human existence. The organization encouraged the adoption of work systems that create healthy and positive environments.

In the same way, the World Health Organization (WHO) advocated for a healthy workplace as a prerequisite to general well-being, with a top requirement for practical and economic space and layout (Baker et al., 2020). In the physicians' case, workplace conditions include physical measures (i.e., daylight, flexible work design, and reasonable access to equipment) because factors inside an enclosed space have positive or negative effects on overall work satisfaction (Mofidi & Akbari, 2020). According to the authors, the relationship between a physical workplace, health, productivity, and well-being is unclear, and there is evidence that workplace control influenced the brain's cognitive appraisal. Using their attached values and attitudes, pro-environment individuals readily adapted to their work environment by sacrificing

personal preferences such as cultural or social clothing. At the same time, other people may not be readily open to change.

Workplace violence is a symptom of a high-strain environment that conflicts with the safe health assurance principle of the United Nation's sustainable economic growth plan for a healthy and safe workplace. The prevalence of workplace violence in healthcare settings prompted the UN 2030 Agenda for Sustainable Development initiative (Baker et al., 2020; Finstad et al., 2019). Often, this results from environmental conditions such as crowded and ill-equipped patient rooms with inadequate ventilation and lighting systems that patients may perceive as violating their rights (Bahadir-Yilmaz et al., 2020). In a study to determine the health outcomes of work-related stress of indoor workers using bullying as a mediating variable, Finstad et al. (2019) reported a relationship between workplace bullying and general health through workplace-related stress, indicating a mediating path to workplace violence. Workplace environmental conditions are also antecedent to workplace violence because bullying becomes pervasive in high-pressure workplace conditions with little crowd control.

Physicians are among the 40% of the U.S. population working shifts other than the traditional 9 am to 5 pm and are at risk of inadequate vitamin D synthesizing. These groups of individuals are also affected by shiftwork and indoor jobs with epidemiological health consequences such as sleep disturbances, cardiovascular disorders, and digestive problems (Sowah et al., 2017). The significance is that these physicians are at risk for musculoskeletal illnesses and other associated diseases such as cancers, metabolic disorders, and autoimmune conditions. Studies found that psychosocial and environmental conditions such as organizational culture, social interaction opportunities, and collaboration influence well-being.

Stoicism. Stoicism is implicit in physicians but rarely amplified in the burnout literature. Furthermore, systemic efforts toward changing the culture of endurance and stoicism lead to a better framing of physician resilience, well-being, less pressure, and a better understanding of the problem (Epstein & Privitera, 2016; Shanafelt & Noseworthy, 2017). There is a need to change the culture of endurance and stoicism. A primary concern of the physician burnout study was the medical profession's reputation for long-standing stoic habits (McFarland et al., 2019b). Although stoicism literature has not treated its influence on a physician's well-being in detail, its primary characteristic of detached emotions and expressions discourages pain acknowledgment and negative help-seeking attitudes (Perry et al., 2019). Stoicism is a virtue among physicians and is an unspoken motivation to underreport mild pain, suppress stress, or deny vulnerability. Additionally, the Stoics' belief system encourages the physician to position the patient’s interests above theirs.

Physicians could make appropriate accommodations, take appropriate actions, and always do the right thing (Papadimos, 2004). Several study findings supported this as a suicide-promoting clinical implication because it encouraged emotional suppression, which compounds well-being challenges (Perry et al., 2019). Critics described it as a thick-skinned positioning of oneself. While it remains unproven as a positive or negative emotion, stoicism occupies the space between stimulus and action, thereby portraying it to require continuous activation (Moore et al., 2013). The expectation is for physicians to eschew their passion and keep good attitudes in the face of challenges, including denial of their weaknesses and illness (Perry et al., 2018).

The forces of the social construct of stoicism may imitate other coping strategies such as acceptance, endurance, and distraction, which, unfortunately, may adversely affect physician well-being. Physicians will also do whatever is necessary to prevent stigmatization and remain

professional, relevant, and valuable because of societal expectations. The major problem with this is their lack of awareness of how working under such pressure affects their well-being. Additionally, proponents may view its values as dedication, bravery, and tenacity, which could defeat burnout and complement medical ethics (Dunson, 2020; Huecker & Zink, 2020). However, critics view perfectionism as anxiety and sadness (Perry et al., 2019). Unfortunately, the stoic values may have conferred some autonomy on physicians but become a challenge in the current large corporate environment where physicians also have cost-cutting and profitability responsibilities (McFarland et al., 2019b).

Figure 4 below depicts stoicism's role in undermining physicians' well-being by perpetuating burnout. The 2019 study by Medscape reported that as few as 13% of burned-out physicians sought help for suicide ideations, 3% thought of seeking help, and 64% had no interest in seeking help.

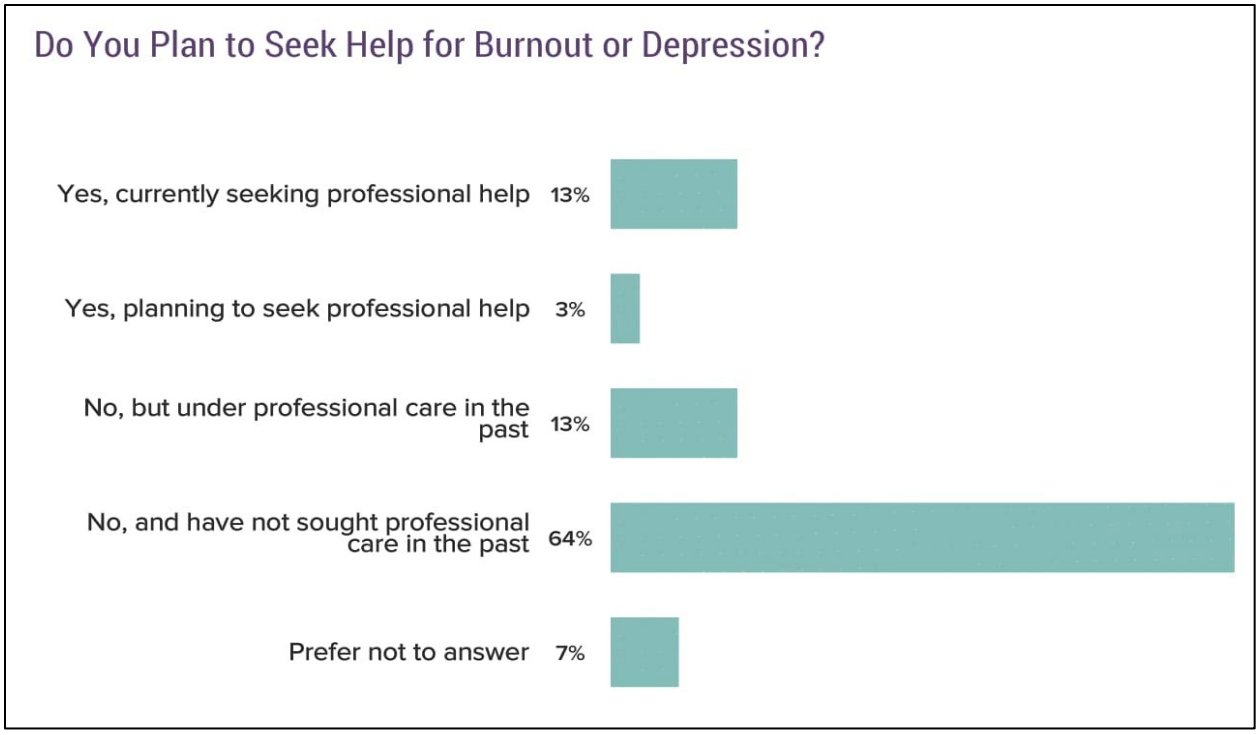


Figure 4. Stoicism and Help-seeking Behaviors of Physicians

Note: Figure 4 was inspired by Medscape. The data collected was from *Medscape National Physician Burnout, Depression, and Suicide Report*. 2019. Copyright by Medscape.

Physician Consequences. Studies have shown that burned-out physicians have a high rate of self-reported medication errors (Medscape, 2019). In addition, a meta-analysis of 47 studies involving over 42,000 physicians found that burned-out physicians had twice the risks of adverse patient outcome incidents and overall low care quality, which amounted to several billions of dollars yearly in losses (Fibuch & Ahmed, 2015; Panagioti et al., 2017). Physician burnout affected patients in the form of additional expenses following a physician's disengagement, as they sought alternative care providers, thereby incurring additional costs (Han et al., 2019). The disengaged physician's employer also loses revenue through patient loss and dissatisfaction, especially in large urban medical centers, where competition is substantial. The authors explained that additional losses resulting from indirect incomes such as laboratory and imaging tests, procedure incomes, and unfavorable payer ratings that might lead to reduced

patronages or total patient severance are indirect revenues that such an organization stands to lose. If uncontrolled, problems such as substance abuse, lawsuits, suicide, medication errors, depression, and a breakdown in familial relationships worsen (Kuhn & Flanagan, 2017). The suicide theory is that the lost sense of belonging and learned fearlessness make physicians more prone to and bolder to such outcomes (McFarland et al., 2019b).

Fred and Scheid (2018) also reported that the evolving art of medical practices, as if in assembly lines, attests to what the physician perceived as the futility of modern medical practice. Study findings of physician tenacity and commitment to high quality, even at a high personal cost, are testaments (Rabatin et al., 2016). Studies have also shown that burned-out physicians have a high rate of self-reported medication errors (Medscape, 2019). A meta-analysis of 47 studies involving over 42,000 physicians found that burned-out physicians have twice the risks of adverse patient outcome incidents and overall low care quality, which amounts to several billions of dollars yearly in losses (Fibuch & Ahmed, 2015; Panagioti et al., 2017).

Furthermore, physicians suffer emotional trauma from the often profound loss of a sense of calling (Grow et al., 2019). Physical consequences usually manifest in exhaustion, fatigue, and irritability, leading to road accidents, avoidable patient readmissions, and poor physician-patient relationships (Patel et al., 2019). These damages, such as work disengagement, are often more deeply rooted than the symptoms outlined here. In a 2018 survey of 15,000 U.S. physicians, 50% of responders were 45-54 years age range, middle carrier, and the age at which productivity peaks for a stable economy (Yates, 2020). These were resident physicians with more clinical responsibilities, such as higher acuity patients and patient throughput, and had more responsibilities and interactions with the broader healthcare team. It is not a coincidence that this group had the lowest work-life balance (Schwartz et al., 2019).

Consequences of uncontrolled physician burnout are bound to trickle down the entire system, but those affecting the physicians appear to be the highest (Maslach, 2018). The constant fear of litigation from medication and treatment errors resulting from burnout also adds to psychological and emotional instability, contributing to absenteeism, early disengagement, and a high turnover rate (Olson et al., 2019). Younger physicians are also more likely to be mentioned in a malpractice suit because they work longer hours and more night and weekend rotations. Studies also show that depression, burnout, and suicide ideation strongly correlate to malpractice lawsuits (Balch et al., 2011). Furthermore, physicians turn to risky behaviors such as drug and alcohol abuse, increasing medical error potentials and legal consequences. Modern medical practice is increasingly commercialized and burdened by the government's heavy regulations and insurance companies' stipulations, affecting physicians' interactions with patients (Benatar & Daneman, 2020). The external pressure partly explains the loss of purpose experienced by older physicians whose training was in the high-touch medicine era. By nature, medical practice is more patient-centered, which contrasts with the current individualized period of high technology (Fred & Scheid, 2018). These physicians experience disappointment from the loss of practice values and frustrations from the medicine's business side. Physicians also complain about the harsh consequences of mistakes (Fred & Scheid, 2018).

Errors and misdeeds relegate past extraordinary medical and career accomplishments, even when working with increasing pressure from fewer resources and increased public scrutiny. The argument is that the medical profession's asymmetric reward and punishment response is sometimes too extreme and that punishments are often without leniency. Professionally, physicians also suffer a sense of powerlessness due to the loss of meaning-making, which increases with longstanding burnout stigmatization and further compounds other burnout-related

problems (Epstein & Privitera, 2016). Most fail to acknowledge their symptoms or the presence of burnout, which further puts them at risk for failure in interpersonal relationships and isolate them from families and life outside work.

Turnover Rates. Physicians' turnover rates are concerning as the number of those reported intentionally exiting medicine to pursue other careers positively correlated to burnout (Olson, 2017). Also, for the past fifteen years, the Association of American Medical Colleges (AAMC) has reported an increase in turnover and shortages (Morgan, 2019). The cycle of physician shortages is a significant cause of physician burnout, as the numerous cost-cutting changes in healthcare compounded the already heavy workload (Grow et al., 2019). Consequently, the cycle continues as productivity loss increases through attrition, early disengagement, and suicide (Han et al., 2019; Vogel, 2018). Furthermore, physicians tended to reduce their work effort by losing control over their workload to minimize burnout, limiting access to care even more (Dyrbye et al., 2017).

Physician Attrition and Supply. The net supply of physicians, which is a necessary consideration for strategic planning, is negatively affected by physician attrition. As the burnout epidemic continues, physician supply falls, resulting in financial and social costs and other consequences (Han et al., 2019; West et al., 2018). Furthermore, there is a relationship between the perceived fit, leader-member exchange, psychological illness, and Job performance credited to burnout as burned-out employees tend to turn over more, have increased absenteeism, and are less productive at work (Huang & Simha, 2018). Multidimensional consequences, including work-life imbalance, the demands of an overburdened system, and medical practice coupled with a misaligned reward system, can negatively affect relationships, including marital life, exacerbating the physician’s fragile mental state.

Medical colleges (AAMC) predicted an estimated physician shortage of up to 139,000 by 2033 in primary and specialty care due to increased physician attrition (AAMC, 2020). With the improving care quality and increase of the aging population, the Affordable Care Act (ACA) improved access by demanding an increase in care. However, physician shortages remain a significant barrier to increasing demand (Zhang et al., 2020). Hamidi et al.'s (2018) study on physician burnout reported a two-year economic loss of up to $957,000 per physician at two Stanford university-affiliated hospitals. Similarly, D'Onofrio (2019) perceived physician burnout as having a profound monetary impact on the U.S. healthcare system. These losses excluded revenue losses from position vacancies and the costs of diminished productivity. In addition to the monetary loss from reduced clinical work during the training period for replacement physicians and sometimes poor attitudes from departing employees, physician departure is always a threat to the organization's image and survival (Han et al., 2019) and health (Schwartz et al., 2019). Replacement costs, lost income, and services not rendered constitute a heavy price tag to the health system with consequences since more providers are in hospital employment than private practices.

Patient and National Healthcare Outcome. Physician burnout will spiral because it is not an end-state phenomenon (Williams et al., 2020b). The complexity will unfold over time and continue without meaningful interventions. Its impact as a system problem reflects care quality, the erosion of patient satisfaction, and limited access to care (Shanafelt & Noseworthy, 2017). More burnout losses arise from the disruption in care quality and continuity. Aside from the organizations, the economy's cost could also reflect the ongoing faculty shortages in the Academic Medical Centers (AMC) through the negative impact on research and education (Hamidi et al., 2018).

The epidemic of physician burnout in the U.S. resulted in a constellation of financial and social costs and many consequences (Han et al., 2019; West et al., 2018). Physician burnout costs surpass that of mere loss of returns on investment as the economy suffers from constant hiring and the drag it presents on national healthcare delivery. Considering the associated multidimensional consequences, work-life imbalances, an overburdened system's demands, and medical practice, a misaligned reward system can negatively affect relationships (Schwartz et al., 2019). Higher patient referrer rates are commonplace among burned-out physicians (Mangory et al., 2021). The cost of hiring, training and productivity losses associated with replacing physicians may eventually affect national healthcare costs.

Related Studies

Burnout significantly mediates the relationships between perceived fit and job performance fit of practicing physicians. One significant confusion with burnout is its relationship with other psychological disorders. One study conducted for clarification of the relationship is analyzed here. In a study of workplace violence and burnout among clinical nurses, Kim et al. (2018) tested the relationship between nurses' burnout and emotional labor using structural equation modeling. The study sample of 400 nurses from four Korean university hospitals in 2016 revealed that workplace conditions increase nurses' emotional work resulting in burnout. The findings suggested that leaders enhanced the organizational management of violence and adopted programs and policy measures to create safe environments for healthcare providers. Although this study involved nurses' burnout, it nevertheless added empirical evidence to the burnout literature of healthcare providers. Also, these authors cited that administrators focused only on individual stress management rather than the collective workplace conditions to decrease emotional labor and reduce burnout, alluding to nurses' individual coping programs to

reduce burnout. Moreover, the authors observed that some minor issues, like verbal abuse, are violent behaviors that affected productivity and displeased the provider's self-concept.

Relationships Between Burnout and Other Psychological Disorders Studies

There are debates over the absence of an established burnout criterion and the shared symptoms with other psychological disorders, and whether or not there is an existing overlap with other psychological disorders and job dissatisfaction (Bianchi et al., 2015; Bianchi et al., 2018; West et al., 2018). These notions prompted the argument that burnout may best be grounded in any of these rather than as a distinct disorder (Rotenstein et al., 2018). Even with the three identified dimensional characteristics, burnout is often confused and used interchangeably with other conditions because of symptoms such as fatigue and headache, which are common to all (Schaufeli et al., 2017; Woo et al., 2020). However, the correlations between these conditions are still confusing because they are not large enough to make them identical (Maslach et al., 2001).

Furthermore, burnout is work-related, while depression, on the other hand, can affect every aspect of life; however, burnout could morph into full-blown depression (Schaufeli et al., 2017; Wurm et al., 2016). The prolonged time between stress and full-blown burnout differentiated stress from burnout, and the debate discussed whether burnout precipitates mental dysfunction or is a form of mental illness itself (Maslach, 2018). In 2019, the World Health Organization (WHO) recognized burnout as chronic and unmanaged workspace stress (WHO, 2019). The more prolonged burnout symptoms remain untreated, the higher the likelihood of depression, but not vice-versa (Seidler et al., 2014).

Epstein and Privitera (2016) attempted to clarify the confusion by contrasting burnout with depression. The authors stated that untreated job stress leads to a loss of caring, empathy,

and satisfaction, translating to a loss of meaning and burnout. Depression, on the other hand, develops from severe and untreated burnout. Wiederhold et al. (2018) supported this position, stating that the two conditions are connected, and the solutions could be similar, but they are still different. Bianchi and Schonfeld (2017) contested the assumption, claiming that this argument did not consider burnout a depressive disorder and disregarded the overlap between the two. According to these authors, burnout is job-induced depression, and the three-dimensional characteristics could not redefine burnout because it still bears the typical depression symptoms of suicidal ideation, anhedonia, and depressed mood.

The assumption that burnout differs from other psychological disorders robs the burnout research of existing accumulated research on depression available for prevention and treatment. Heinemann and Heinemann (2017) support this position reporting that limited research on burnout's psychological and somatic symptoms exists, preventing adequate diagnostic criteria from differentiating burnout from depression. The question remains whether the numerous burnout studies evaluate the same phenomenon as no definitive markers exist. The absence of a uniform biomarker hampers diagnosis and collective management. Also, the term is subjective, dynamic, and suggestive of an irreversible condition. The authors acknowledged that the burnout term is vague and ambiguous, generating debates among scientists and practitioners due to their inadequate study of the subject. However, one research conclusively clarified the relationships between burnout and depression and burnout and anxiety, indicating different and robust constructs (Koutsimani et al., 2019).

The 2017 National Emergency Medicine Wellness survey noted that the burnout risk factor might not be the same for all physicians. Workload remains the most popular burnout factor and consists of working long hours, including burdensome clerical duties, especially

among the more senior resident physicians with more responsibilities even on their off-shift rotations (Lin et al., 2019a). The authors were not specific about which job factors most contribute to burnout but surmised that wellness and resilience training is insufficient. Solutions must include organizational and strategic interventions. Organizations must abandon inefficient cultures, such as the burdensome physician's administrative and clerical duties, and engage scribes for those tasks.

It is essential to be aware of mental health treatment responses. Overlooking a response spectrum may increase physicians' stressors with well-managed conditions, which occurs when all physicians with mental disorders are treated equally with negative attitudes toward their performance ability. Physicians with past or well-managed stress conditions are sometimes stigmatized (Cho & Huang, 2020). The fear of stigmatization also leads them to withhold such information, internalize anger, and further increase their burnout risk. Physicians may also be reluctant to get professional treatment for this reason. They may not be forthcoming about any issues with their functional ability for fear of retribution from licensing authorities (McFarland et al., 2019a). Even when these physicians seek help, they receive special attention, which often means that the treating physicians avoid asking sensitive questions, thereby providing substandard care that perpetuates stigmatization and worse care. The common misrepresentation that burnout reflects personal failings has led to the proliferation of recommendations for how self-care can resolve burnout (Maslach, 2018; McFarland et al., 2019a).

As the epidemic continues, the U.S. healthcare system is approaching a tipping point of physician burnout. The knowledge gap of facts surrounding the syndrome is a source of an additional barrier to care (Schwartz et al., 2019). The argument is that the current practice conditions increase the physician’s stress level, resulting in burnout. Healthcare authorities at the

national and state levels contribute to the physician's burden to supply and justify diagnoses from an array of confusing choices that are clinically irrelevant to the current tests and procedures due to outdated systems (Downing et al., 2019; Shanafelt et al., 2017a). The paperwork process complicates care provision as physicians must decide which services are acceptable to payers before implementation.

Anticipated and Discovered Themes

Analysis of literature and published studies suggested that workplace conditions, inefficient practice environments, and the enormous clerical burden significantly influence physician well-being and work engagement. Furthermore, the World Health Organization (WHO) recognized the importance of a healthy workplace as a prerequisite to general well-being, with a top requirement for practical and economic space and layout (Baker et al., 2020). This study anticipated that workplace conditions independently contributed significantly to physicians' well-being. The effect may be more important or equal to the impact of the physician's resilience.

Summary of the Literature Review

It was remarkable to see the wild appreciation and adoration for healthcare professionals in times of pandemics in which they displayed beyond-the-call-of-duty heroism. The world is gradually returning to normalcy. However, physicians still suffer the problem that costs the U.S. one physician life daily. The literature review discussed the business practices, concepts, theories, constructs, related studies, and anticipated discoveries. This literature review evaluated the arguments surrounding these challenges. First, the term should not represent a medical diagnosis or a basis for decisions because of the existing knowledge gap (West & Shanafelt, 2018). Second, the contribution explained that burnout, contrary to the belief that it is an

individual problem, is a system problem. As of this study, no uniform definition of physician burnout exists. Physicians' unique talent pool of resources is a country's most asset that requires proper nurturing and adequately depicted physician burnout, indicating system dysfunction and alerting the entire healthcare system to the need for course correction. (Olson, 2017). Burnout and suicide can cause a depletion of this talent.

Summary of Section 1 and Transition

This section explored the foundation of the study. There are numerous dimensions to the problem, and gaps exist in the literature concerning causes, diagnosis, and treatments because many burnout studies have focused on resilience. However, recent studies show that individual-driven burnout requiring behavioral adjustments is a misconception. This section also includes the literature review to show the facts of the physician burnout crisis in the U.S. healthcare system even before the additional pressures of the current Covid-19 pandemic. The seriousness of the condition is a public healthcare crisis that affects physicians and patients and undermines the healthcare system. Compounding the problem is the minimal research on workplace conditions' role as a contributing factor, especially the dynamism inherent in each state, and there is a literature paucity concerning how and what type of workplace conditions influence physician burnout. Compared to other aspects of burnout research, such as those involving corrective measures and solution pathways, the limited study on workplace conditions underscores this study's importance (Brigham et al., 2018). This study employed well-being due to its uniqueness as the core and essence of healthcare.

A 2016 study by the Mayo Clinic indicated that well-being evaluation is more valid for assessing mental distress and is superior to other tools (Shanafelt & Noseworthy, 2017). Other highly credible studies also recognized that these gaps in the literature are well suited to a

qualitative approach due to the explorative nature of inquiry requiring in-depth description. Addressing workplace conditions as a contributing burnout factor can shift focus to environments such as those inherent in the federal capital region and what job settings affect physicians' work engagement. Workplace studies may provide essential dimensions to the understanding of the problem. The literature included the business practices problems, the burnout constructs, measurements, the cyclical relationship between burnout and physician shortages, the effects of workplace conditions, and how they contribute to physician burnout.

Furthermore, the Quadruple Aim of healthcare provides healthcare research with a multi-dimensional focus on the physician's well-being as it provides the goals and expectations of a healthy system. The researcher discussed other vital concepts in burnout literature, such as burnout relationships with other medical conditions, the Well-being theory, the Maslach theory, and the Conservation of Research theory (COR). Under the constructs, the discussion included the physician turnover rates, physician supply, patient outcomes, national healthcare outcomes, and the expected study outcomes.

Section 2 details the appropriateness of the qualitative multiple-case study designed for this study. The researcher will discuss the research design, method, sample selection, criteria, data collection strategies, and data analysis methods. Additionally, the section highlights the researcher's awareness of personal biases, preventing influence on the research. Furthermore, the researcher will discuss the steps to promote the study's reliability and validity.

Section 2: The Project

This study seeks to explore the effects of workplace conditions on physician burnout. This section details the purpose statement, the role of the researcher, the methodology, and the design guiding the research and data analysis. Also included are participant selection logic, instrumentation, the rationale for recruitment, participation, data collection, procedure, and the data analysis plan. This study uses interviews as data-gathering, fast becoming more popular in medical education and a more viable research tool. Interviews are also the most research-focused, and semi-structured interviews are even more famous (McGrath et al., 2019).

Furthermore, participant interviews are the preferred method of data sourcing for this study because the uniqueness of healthcare settings and the typical hustle and bustle of clinicians' daily lives make other forms of information gathering, such as group sessions, challenging (Flynn et al., 2018). Their high internet accessibility and increased usage are advantageous and the best option (Gray et al., 2020). Interviewing is a form of consultation that has undergone significant changes with improved technology (Adhabi & Anozie, 2017). Telephone and in-person interview techniques are the most utilized, while email, although not as popular, is also a great technique that achieves the same purpose as a face-to-face interview. Electronic meeting or video conferencing methods such as Zoom, Skype, and WebEx combine the advantages of an in-person, face-to-face interview with audio aids without the inconvenience of traveling. Video conferencing lends itself to exploring the interviewees' experience and a higher understanding of the phenomenon from the interviewee's perspective as it accords more expression of opinions.

Furthermore, electronic meeting strategies remove the quality challenges associated with interviewing implementation as the interviewer and participant benefit from face-to-face and visual aid, fostering deeper connection and interaction without travel challenges. Research

interviews also allow the researcher to interject where necessary to ensure that the subject understands the topic or question under scrutiny and can give adequate responses. Electronic interview strategies provide better data quality than face-to-face interviews using visual aids (Gray et al., 2020).

Purpose Statement

The purpose of this flexible multiple-case study research was to add to the body of knowledge by exploring how workplace conditions contribute to physician burnout in Maryland State. The study of burnout has primarily focused on the physician's risk factors and the consequences (Gregory et al., 2018). There is also extensive literature on improvement suggestions encouraging physicians to develop personal coping skills without clearly identifying the burnout origin, thereby portraying the problem as a sign of the physician's weakness or professional unsuitability (Heineman & Heineman, 2017; Mull et al., 2019). Understanding how workplace issues contribute to burnout can improve consistent burnout classifications and better identify the causes and effects, creating clear pathways to developing appropriate interventions. Also, there is an increased call for physician well-being in the healthcare system improvement strategies to promote better quality, focusing on burnout (Panagioti et al., 2017; Rotenstein et al., 2018). The findings of this study will contribute to solutions to the existing problems associated with the threat to safe and high-quality healthcare in general. The research will also advance the discussions that may help alleviate the burnout stigma on physicians (Vogel, 2018). Furthermore, the study contributes to healthcare improvement discussions that translate to reductions in U.S. healthcare problems such as high healthcare costs and low care quality.

Role of the Researcher

Creswell and Poth (2018) stated that the researcher's role is to be interactive in the study. The researcher's activities involved planning and facilitating the best-fitting research design tools. For this study, the researcher identified several healthcare organizations with diverse settings in different regions within Maryland State. The researcher contacted and obtained multiple permissions to conduct this study from Liberty University's Institutional Review Board (IRB) and the management of the healthcare workplaces. The researcher solicited and interacted with the participants through oral, written, and telecommunication. The search for participants and initial contact occurred through emails, telephone, and social media. Finally, the researcher collected and analyzed all data obtained and presented the overall findings. Throughout this process, the researcher ensured data integrity and was mindful of personal biases for social desirability, which is possible in social research (Bergen & Labonté, 2020). As an inquirer, the researcher bracketed the study as an outsider and approached the topic with neutrality (Weatherford & Maitra, 2019).

The researcher's self-awareness as both a research instrument and a social entity with political, emotional, and cultural worldviews dictates self-scrutiny and mindfulness of the necessary self-presentation to avoid any potential influence on the research. Intellectualizing the topic minimizes emotional investment beyond a researcher's interest (Gregory, 2019). Even as a healthcare professional, the researcher has no insider or collegial relationship to influence data sourcing or analysis. Finally, the researcher is obligated to protect the privacy and confidentiality of the study participants. Names or personal information were replaced with codes (Yin, 2018). In addition to anonymity, participants were informed of their freedom to withdraw from the study without further recourse (Simon & Goes, 2018).

Research Methodology

This section of the dissertation discusses the methodology and design components, including the rationale for the choices. This researcher used a qualitative multiple-case study approach to investigate this study's three research questions.

RQ1. How have workplace conditions affected the likelihood of physician burnout?

RQ2. What workplace conditions or experiences are responsible for contributing to physician burnout?

RQ3. How do physicians describe their experience with burnout, and how does burnout contribute to physician attrition or shortage in this care facility?

A qualitative multiple-case study is the most suitable for understanding a phenomenon, such as the effects of the physician's workplace conditions and the individual physicians' unique interpretations. Yin (2018) stated that case studies are designed to answer the “how” and “what.” Moreover, the researcher sought to understand how workplace conditions affected physician burnout, the workplace conditions or experiences contributing to physician burnout, attrition, or shortages in care facilities. The following section provides an in-depth discussion of the benefits of using a flexible design.

Discussion of Flexible Design

The chosen method for this study is the qualitative method. The qualitative research method is a systematic procedure to resolve the defined research questions. Multiple factors define the qualitative research method. Also, researchers consider it less structured than quantitative research because it must remain flexible to extract and analyze complex meanings from data (Aspers & Corte, 2019). The intent to explore the common phenomenon of workplace conditions on physician burnout in Maryland and its environment informs this choice as the

method. Although there is no perfect study, a researcher is still responsible for determining the best possible study methodology based on prevailing circumstances, understanding, and resources (Bengtsson et al., 2016). It is most suitable for this study, unlike the quantitative method, which is more suitable for experimental studies (Ridder, 2017).

The qualitative term encompasses several approaches and is a multi-method focusing on a naturalistic approach to the phenomenon under study (Aspers & Corte, 2019). It ensures research data saturation, which promotes the dependability of findings, emphasizing that failure to reach data saturation can impact research quality (Fusch et al., 2018). Compared to the quantitative, the qualitative method is often fluid in definition, making literature sometimes define it as the opposite of the quantitative method (Small, 2021). Furthermore, the constructionism orientation of the qualitative method, that social interactions between people construct truth, versus the positivist orientation of the quantitative method, that the researcher's hypothesis and mathematical outcomes reveal what truth is, justifies the choice of the qualitative method for this phenomenon of the workplace experience (Bleiker et al., 2019).

As a methodology, qualitative research differs partly, according to Lanka et al. (2021), for being multifaceted compared to the quantitative research method, which possesses an agreed set of standards and templates. It is particularly relevant to this study because of its enormous popularity in healthcare and its ability to entertain numerous perspectives (Henrique & Godinho, 2020). Another justification for using the method is the inherent multiple realities, as it interprets the objective of human behaviors and the subjective ascribed meaning to the behaviors (Aspers & Corte, 2019; Fusch et al., 2018). The design of the subjective human emotions that gain the status of the researcher's science construct is for generating intelligibility about the study and not the absolute truth. Also, comparatively, it is the best construction of the interrelations of the

indicators. This constructive-interpretative methodology is contrary to the belief of the quantitative research method that empirical data is the basis for interpretation (González Rey, 2020).

Also, this study uses non-random, purposive sampling, which will further help understand the phenomenon by encouraging the inclusion of all opinions or views (Gill, 2020). Although there is no perfect study, a researcher is still responsible for determining the best possible study methodology based on prevailing circumstances, understanding, and resources (Bengtsson, 2016). The qualitative method is most suitable for this study, unlike the quantitative method, which is more suitable for experimental studies (Ridder, 2017). Qualitative study also ensures research data saturation, which promotes the dependability of findings, emphasizing that failure to reach data saturation can impact the research quality (Fusch et al., 2018). As a methodology, qualitative research is particularly relevant to this study because of its enormous healthcare popularity. Furthermore, it is more suitable than other methods where there is a time constraint, and those experiencing the phenomenon are also the sources of information (Bradshaw et al., 2017).

Discussion of Case Study Method

This research employed the case study design using multiple physicians' cases and their different experiences from diverse healthcare organizations and specialties regarding workplace conditions affecting their job engagement. Case study research is most suitable in an actual-life situation with several variables and multiple sources of evidence (Yin, 2009). Furthermore, the case study method was chosen because it enabled the triangulation of multiple sources of evidence and compared multiple organizations or entities to explore complex, context-dependent phenomena for this research. The relevance of the case and the ability to answer the research

questions is the central theme of the case study design (Yin, 2013). Case study design investigates a real-life phenomenon within its environmental context in depth. The uniqueness of the case study research is that the organizational environment's contextual properties are part of the study, and the various physicians in this study provided their individual experiences. Multiple-case studies can contribute to a theory through construct expansion and theory advancement through in-case comparison (Ridder, 2017).

A detailed description of the physician burnout phenomenon was achieved through interviews and questionnaires and revealed patterns. Furthermore, this study made use of non-random sampling. A case study design is practical when exploring a phenomenon's details and complexities for better understanding (Yin, 2017). Additionally, qualitative researchers used the case study design to explore multifaceted events or phenomena in the natural context of the event or phenomenon (Harrison et al., 2017). The researcher considered using a quantitative descriptive case study; however, decided on a qualitative explorative, multiple-case study design to gain the significant advantage of understanding how the phenomenon occurred (Yin, 2017).

Discussion of Method for Triangulation

Case study research requires triangulation to ensure rigor and reliability (Farquhar et al., 2020). The triangulation term describes a research process that employs multiple levels and perspectives of the same phenomenon or methods for the data source to ensure data corroboration (Fusch et al., 2018). Hence this research combined interviews, observations, and literature to substantiate the findings and provide a more comprehensive description. Fusch et al. (2018) identified four qualitative study triangulation types to ensure objectivity, truth, and validity. One method is methodological triangulation for construct validation, which involves using multiple sources for the same data.

Additionally, the researcher collected information from physician supervisors and their organizations' human resources management personnel. In addition to interviews and records from multiple and structurally diverse healthcare workplace settings, the researcher used the most recent literature on the phenomenon as a means of data triangulation (Eriksson & Kovalainen, 2016). According to Creswell and Poth (2018), triangulation occurs when the study applies multiple and different data sources. Ensuring the credibility of information received from participants through background research to develop an insight into their organization also served as data triangulation. Moreover, this study implemented rigorous and confirmable techniques to collect quality data. The researcher crafted the research questions and made the analysis decisions before the data collection commenced to prevent researcher bias. Finally, the fact that this researcher is not a physician eliminated personal biases.

The researcher utilized a combination of sources to ensure the highest degree of validity and confidence, as is customary practice in case study design, to capture the complexities inherent in human research (Yin et al., 2018). Furthermore, using different data sources provided more evidence that could result in theme justification, theories, and study validity (Creswell & Creswell, 2020). Although researchers can establish triangulation using a mix of quantitative and qualitative methods, the quantitative method is best suited for statistical-biased research. Furthermore, triangulation with multiple resources could address the problem of information marred by the participant's elusiveness in situations where vulnerability is a deterrent by combining background information and corroborating findings (Natow, 2020).

Summary of Research Methodology

The qualitative method is more suitable for healthcare research, especially with multiple potential realities (Fusch et al., 2018). Although one method is not supreme in general, the

qualitative method was the best approach for this research because the quantitative method embodies methodologies mostly with measurements for generalizing findings. Also, the researcher chose this over the quantitative method because of the holistic nature of qualitative designs and performed better in natural settings using real-world data (Farquhar et al., 2020). The deductive reasoning approach and the linearity of the research part of the quantitative method would not suffice for the data collection and analysis of a study involving human behavior. Multiple-case studies were the best choice for this research because they described multiple perspectives with contextual emphasis (Abma & Stake, 2014; Harrison et al., 2017). Unlike quantitative, which emphasizes measurement and analysis reliant on realities independent of the participant's experience, qualitative research gives insights into people's subjective experiences and behaviors, including well-being and other issues in an organized setting.

Subsequently, the qualitative method pairs well with the case study design in answering research questions requiring multiple data sources (Yin et al., 2017). For quantitative research, the actions and steps necessary cannot be mathematically determined, which predetermines standards and measurements. Finally, the case study was the most suitable research method to answer the questions of "why," "what," and "how" with a relatively complete understanding of the nature and complexity of the research phenomenon (Yin, 2018). The researchers could study phenomena in natural settings and meaningful and relevant theories generated from the understanding gained by observing actual practice.

Participants

Participants for the study were selected using purposeful sampling to obtain specific data related to the research topic (Creswell & Poth, 2018). Principal participants are physicians, physician assistants, and physician managers with a minimum of six months of experience in

their present employment in healthcare organizations in Maryland state. Specifically, the researcher sought participants from several healthcare facilities in Maryland state. Previous studies assessing physician burnout intervention showed that studies involving the physician's workplace have transformative effects on improving patient outcomes (Finstad et al., 2019; MacArthur et al., 2018; Yates, 2020). Additionally, the researcher confirmed participants' anonymity by removing any personal identifying information to encourage truthful participation. New alliances needed to combat burnout would involve the physician's collaboration with research to align research outcomes with the interests of other stakeholders when explicitly tailored for each setting or state (Dyrbye et al., 2017). The researcher determined the participants' eligibility and filtered out unqualified participants using a predetermined set of qualities. The initial invitations to qualified participants were through a survey link indicating the requirement for medical qualifications and length of time working as a hospital physician.

Population and Sampling

This section discusses the population and sampling method adopted. The researcher discussed the participant inclusion, exclusion, criteria, data collection procedure, and data analysis plan (Rahi et al., 2019). Using the qualitative methodology for this is based on its unique goal of phenomenon contextualization (Jenkins et al., 2018). Furthermore, qualitative studies favor few participants describing their experiences and knowledge, so a constant review of participation was in place throughout the research, especially at the achievement of thematic saturation (Constantinou et al., 2017).

Discussion of Population

This study population consisted of physicians, physician assistants, and nurse practitioners in primary care workplaces. The workplaces included tertiary-affiliated healthcare

organizations, for-profit, and not-for-profit healthcare centers, retail healthcare centers, and independent primary care physician practices in Maryland and the suburbs of Washington, D.C. These choices of the healthcare systems resulted from a search of diverse settings of healthcare systems with diverse ownership compositions. It was necessary to survey multiple different locations as this may be a critical workplace factor and determinant of burnout. This diverse population is essential to the study to provide context and enrich the study by highlighting similarities and differences in the contributing factors (Del Carmen et al., 2019) because ownership and management composition differs (Edwards et al., 2018). Another consideration for the choices was that research outcomes from such a study could easily be generalized among similar organizations. Also, the Health Professional Shortage Area (HPSA) statistics designated by the Human Resources & Services Administration reported that medically underserved populations (MUP) had less than an adequate number of physicians (data.HRSA.gov). Moreover, research showed that American providers are abandoning private practices for employment in hospitals and large healthcare systems, leading to the loss of solo practices and results from changing medical practices.

Understanding how those workplace factors hinder physician engagement and induce burnout is essential by factoring in the different environments within similar practice levels, ownership, and physician autonomy. Multiple-site healthcare workplaces helped better understand the aggregate effects of such a system's workplace condition. Additionally, the contextual diversity within and between these clinics and locations may further enrich the study. Using a multiple case study highlighted the contextual differences in workplace conditions that may be lost (Mureithi et al., 2018). Furthermore, using multiple cases increased evidence-based precision medicine practices in healthcare systems (Rahm et al., 2019).

Discussion of Sampling

The researcher utilized a purposive sample strategy for participant selection. In qualitative research, evidence of rigor or quality is not dependent on large data volume. As such, purposive sampling focuses on the most affected population. Purposive sampling in qualitative research involves selecting applicants who may be most affected by a specific issue or have first-hand knowledge of the phenomenon studied (Valerio et al., 2016). Furthermore, acquiring a minimal and adequate sample size for depth is essential because a large volume of data can threaten synthesis quality, as extensive studies can impede depth and richness (Ames et al., 2019). Thus, purposive sampling ensures that participant selection is deliberate for adequate information and optimizing research resources (Campbell et al., 2020). Unlike quantitative research, which uses predetermined elements, qualitative research emphasizes context-dependent data richness rather than a large volume and dictates an appropriate sample strategy that ensures adequate information strength, primarily when variations of participants and opinions exist (Malterud et al., 2016; Whitehead & Whitehead, 2020).

This study utilized semi-structured interviews as the data-gathering method and later transcribed the interviews using a contracted professional transcriptionist. Research interviewing is a form of consultation that has undergone significant changes with improved technology (Twis et al., 2020). Interview as an information-gathering tool has become more prevalent in medical education and even more viable as the most research-focused tool (McGrath et al., 2019). Telephone and in-person interview techniques are the most utilized, and email achieved the same purpose as an in-person interview. The use of interviews for the data collection was appropriate for this research due to its economic advantage of the least cost and faster data turnaround for the researcher (Gray et al., 2020). The researcher recruited 21 participants from several healthcare

organizations and strived for an equal chance of participation until saturation. When searching for qualitative research saturation, Creswell (1998) suggested between 20 to 30 sample sizes for a case study sample size. Many other scholars peg 15 as the baseline, and others, such as Alam (2020), Guest et al. (2020), and Hennink & Kaiser (2022), suggested 20 participants because little to no new information emerges as the number approaches 20.

The saturation point refers to an appropriate data collection point where new research information ceases to emerge (Braun & Clarke, 2021). It is a research measurement of rigor indicating enough samples to catch the experiences of those not sampled and improve generalizability and credibility (Hennink et al., 2017). The saturation point provides concrete guidance on how many interviews, or focus groups, are enough to achieve some degree of study rigor, after which additional information is redundant. Across academic disciplines, the adequacy of sample sizes has been a significant research component, even in qualitative healthcare research, where the inquiry aims to find or expand existing phenomena (Thorne, 2020). The researcher solicited and interacted with the participants through writing and telecommunications, with the initial sourcing and recruitment through social media. At the start, the researcher provided participants with detailed research information, and in the end, the researcher collected and analyzed all data obtained and presented the overall findings.

Summary of Population and Sampling

The researcher discussed the study population in this section. The research implemented a multiple-case study of physicians in multiple healthcare workplaces of primary care settings applying a purposive participant selection process. Multiple case study enriches a study by highlighting the contextual differences in workplace conditions that may be otherwise lost. Case study interviews further assist in deconstructing and reconstructing complex phenomena.

Furthermore, healthcare systems emphasize coordinated primary and preventive services that promote reductions in health disparities, enhance healthcare values, and increase access for low-income individuals, racial and ethnic minorities, rural communities, and other underserved populations. Practical solutions may require direct interventions starting with research studies of different healthcare settings (Gray et al., 2020). This study employed 21 participants through a purposive selection using inclusion and exclusion criteria. Many scholars agree that twenty interviews for such a study are an acceptable sample size needed to achieve saturation.

Data Collection & Organization

The qualitative research data collection and organization stage is a broad spectrum of research steps (Jain, 2021). Although qualitative research generally favored multiple data sources and methods, primary data-collecting methods such as surveys, interviews, and case studies remained the most widely used (Smit et al., 2021). Moreover, the unique environment and the typical hustle and bustle of clinical settings made qualitative healthcare research challenging (Flynn et al., 2018). In the last decade, improved telecommunications and wireless services have reduced the adverse effects of this busyness and improved data collection in healthcare research (Teichert, 2021).

The data collection stage of empirical research involves several choices, such as the design procedures and decisions concerning control variables and managing missing data (Moser & Korstjens, 2018). The use of qualitative research and, specifically, a multiple-case study allowed for multiple forms of data matching and a more in-depth understanding of the phenomenon, which has also increased healthcare research in evaluating difficulties and the decision-making process (Runfola et al., 2017). In case-study research, the researcher possesses data collection tools such as observations, documents, and interviews (Creswell & Poth, 2018).

However, the researcher is an essential tool, and the case study's deciding factor is the case's boundary (Tomaszewski et al., 2020). Also, due to the sensitive nature of qualitative research, continuously re-examining the tools was needed for this study. The adequacy and continuous use of the tools resulted from their adequacy by preceding tasks to ensure rigor, which ensured sensitivity to the subjective experiences and biases of both researcher and participant.

Data Collection Plan

This researcher applied multiple data-collecting methods, including virtual interviews via Zoom video conferencing and email due to the covid-19 pandemic severely limited human interaction, reducing the possibilities of in-person interviews. Furthermore, data sourcing has reached a new standard with the improvement of telecommunications (Salvador et al., 2020). Also, most importantly, researchers have found that some healthcare practitioners prefer the video conferencing interview strategy over other methods, such as in-person face-to-face (Archibald et al., 2019). Accordingly, the internet has become a meeting space to collect qualitative data, including its use as a source of health information. Specifically, in a multiple case study, the strategy is advantageous for process neutrality and essential for accessing more participants from various places.

Furthermore, the comparability to the in-person techniques for both the researcher and the participants makes it the most viable option. The technique promotes confidentiality in the research process, which increases internal reliability (Salvador et al., 2020). With the participant's consent, the researcher made recordings of the interview using Zoom video conferencing resources and encouraged participants to ask questions, as video conferencing participants may be more open and expressive than in a physical or in-person situation (Gray et al., 2020). The researcher informed them they would receive a link to the interview when it was

time. The researcher obliged participants' preference for another conferencing method to encourage participation.

Video conferencing application has advantages similar to physical or in-person interviewing. In addition, using Zoom has numerous unique features that positively affect research data gathering (Gray et al., 2020). The proliferation of video conferencing tools promoted qualitative data gathering and provided unique data generation opportunities, making it increasingly popular and the preferred data gathering method. Also, a non-contact interviewing approach is preferred for this research because it minimizes the chances of public encounters with the interviewer, which may test the participant's vulnerability, an issue for consideration in well-being research.

The global social distancing measures implemented during the covid-19 pandemic increased the versatility and popularity of Zoom video conferencing as a research technique. Also, the pervasiveness of internet usage and the proliferation of video conferencing techniques have increased the utilization of online methods for qualitative research and improved research data generation (Gray et al., 2020; Oliffe et al., 2021). The virtual learning, researching, and interacting method became “the new normal worldwide,” which experts believed would become a standard part of the future learning system (Biswas et al., 2021). Although internet use for some parts of qualitative research was well established before the pandemic, the increasing use of this mode elicited some security concerns. Snelson et al. (2021) enumerated some possible solutions, including using Web 2.0, which combines the advantages of multiple technologies for data storage, organization, and management. Moreover, the Zoom recording is not automated, and the user-specific features allowed the researcher to audio and video record the meetings. The ability to back up recorded sessions in a Zoom-maintained domain rather than a third-party

software also enhances data safety and makes it a preferred platform among most users (Marhefka et al., 2020).

Physicians are busy professionals, and recruiting them for research participation is fraught with contextual barriers (Lech et al., 2021). Communication and good working relationships are paramount to research, particularly in this field. The researcher had to generate ideas to recruit physicians and ensure that data collection was easy and flexible. The researcher made initial contact with the participants through an introduction letter via emails, social media, and phone calls. The introduction letter detailed the research information, including the participant's and researcher's expected roles to ensure transparency. The researcher informed participants that participation was voluntary and assured them of their anonymity. After the introduction letter, the researcher implemented the Well-Being Index survey created by the Mayo Clinic to collect physician burnout information (Appendix C).

The researcher directed the participants to complete a screening survey on Survey-Monkey, a web-based application, to determine if they were eligible for the study. Email invitations were sent to qualified physicians soliciting participation and required the physician to practice or have been in the appointed clinic for the last two years. Data collection began with each participant signing an informed consent form. The researcher planned to use a backup tool by using another method of communication (telephone and email) in case of technical difficulties such as a loss of internet connection or other audio and video disruptions. Anticipating threats and challenges during interviews helped the researcher produce high-quality outputs and save valuable time and resources (Orr et al., 2020). The researcher will apply another method, such as telephone calls or email. The researcher communicated this to participants and obtained permission before the interview.

Instruments

This research implemented interviews as the primary data collection method applying semi-structured, open-ended questions. Semi-structured interviews helped the researcher deeply explore the phenomenon using the ascribed meaning of the interviewee and increased the possibility of uncovering new concepts and themes (Roberts et al., 2019). The interviews were conducted through the Zoom video conferencing application for about 45-60 minutes or in person with each participant. A key advantage of Zoom is that the researcher could secure and store the participant interviews in an online remote server or local drives without third-party storage (Zoom Video Communications Inc., 2021).

Furthermore, Zoom has the security feature of user-specific authentication and recordings that do not require account creation, which removes any additional inconvenience or participation reservation. In addition to the ease of usage, Zoom possesses better data management features and security options, which are superior to other video conferencing platforms (Archibald et al., 2019). The meeting invitation link generated is also adjustable for the interview type. It also allows screen-sharing to display documents and images, such as a consent form and a simultaneous audio and video recording capability. Zoom also enables an audio-only recording option and recording pause when the participant prefers to speak “off the record” and maintain anonymity.

After obtaining the participant's permission, the researcher recorded all the interviews to capture the verbal content and nonverbal expressions. The researcher later repeatedly listened and watched recordings to observe the nuances of the vocal expressions to enable literal transcription and maintain interview integrity. Researchers must develop and hone abilities desirable for different interview stages, the chief of which is the interaction between the

researcher and participant (Aarsand & Aarsand, 2019). A dominant task for the researcher also during the interview is clear expression. Qualitative research design promotes a deep involvement as the primary research instrument through participant recruitment, field note, record gathering, observation, and analysis (Moser & Korstjens, 2018). When a participant opts for a telephone interview, the researcher shall address participants by their code name, just as in video sessions, because the perception of greater anonymity can lead to greater disclosure (Haste, 2020).

Interviewing is the traditional and the most popular qualitative data-collection method to answer research questions, and preferable in case studies where the researcher strives to understand the interviewee's subjective perspective of a phenomenon (McGrath et al., 2019; Moser & Korstjens, 2018; Yin, 2018). Moreover, case studies are the preferred method when direct observation of participants is not feasible (Creswell & Creswell, 2018). Another significant advantage of interviewing method of information gathering is that the researcher had the freedom to control the line of questioning. Conducting semi-structured interviews allowed the researcher to unlock experiences unique to the interviewees, gain insights into specific experiences, and elicit core information from each participant. The researcher took notes as an additional data source to catch vocal intonations during physical expressions and gestures that might be otherwise inaudible in interview recordings.

Interview Guide. This researcher implemented an interview guide consisting of standardized questions (Moser & Korstjens, 2018) (Appendix A). The interview guide listed issues to address through the interview questions and directed the researcher's interview process. For the interviews, the researcher followed a specific predetermined sequence that was socially constructed and not naturally occurring (Pope & Mays, 2020). A productive interview should

involve a guided back-and-forth dialogue pattern rather than a strict question-and-answer sequence (Yin, 2018). The researcher implemented semi-structured interviews to explore the phenomenon in-depth and draw on aspects of descriptive research to allow a comprehensive summary of events in simple terms. Semi-structured interviews allow understanding of the phenomena through the participant's descriptions and ascribed meanings (Roberts et al., 2019). The researcher encouraged participants to choose a convenient date and time to access the video conferencing services.

The researcher developed the interview questions to capture the physician's experiences of how workplace conditions contribute to stressful workplace conditions. Using systematic data exploration, the researcher concluded the data by identifying themes for each unit of analysis (Chun Tie et al., 2019). Obtaining new theoretical knowledge is challenging in a healthcare setting that involves a physician's mental well-being and burnout resulting from chronic work-related stress syndrome (Patel et al., 2018; West et al., 2018; Williams et al., 2020a). Also, research objectivity requires some distance between the researcher and participants to monitor and manage biases and decrease field contamination from any researcher's undue involvement. Still, the researcher should possess reflectivity (Thurairajah, 2019). Reflective thinking enabled the researcher to re-examine themself, the participant, and the processes to ensure everyone was aware of the vulnerabilities, promoting good relationships and the study's credibility. This part was crucial because a reflective researcher is mindful of biases and research blind spots, manages their impacts on the study, and is responsible (Austin, 2021). Additionally, the researcher could incorporate reflectivity through notes and journaling (Creswell & Creswell, 2018).

Surveys. This study applied the Mayo Clinic's Well-Being Index (WBI) (see Appendix C) survey, which was invented to measure burnout, evaluate the status of a physician's well-being, and re-engage them with their professional purpose. The survey is an anonymous, web-based tool that evaluates multiple dimensions of distress using nine questions. The tool has been validated and researched by multidisciplinary professionals to support quality-of-life research for physicians' fatigue, depression, burnout, anxiety, stress, and mental and physical quality of life. More than 35,000 physicians have used the survey in the U.S. The survey has servers with military-grade encryption and results from a rigorous process validated by multi-steps over individual medical students, physicians, and studies.

Unlike other stress and burnout inventory instruments, the WBI survey was created explicitly for physicians by physicians at the Mayo Clinic to better support their providers' well-being (mywellbeingindex.org, 2021). The mission is to promote the physician's well-being through research, education, and individual and organizational well-being initiatives through physician satisfaction and performance optimization. Program investigators aimed to advance discovery and transform practice to improve physicians' work lives and patient care. Additionally, the WBI complemented this research framework and had the qualities to measure six dimensions of distress and well-being instead of just including burnout.

The self-assessment tool is easy to use and allows physicians to calibrate their well-being. Additionally, the tool has advantages over other commonly used surveys, which are too long and cumbersome, fail to provide anonymity, and do not have the functionality to correctly measure and support physician well-being. Participants responded to nine questions in the WBI tool that took about one minute to receive individualized results (Mayo Clinic, 2021). The Index compares the individual's scores to normative data from a large national physician sample. There

is a correlation between practicing physicians' WBI index score, career satisfaction, and intent to leave their current practice (mywellbeingindex.org).

Data Organization Plan

After the interviews, the researcher developed transcripts of the interviews by electronically transcribing the recorded interviews from voice to text with the help of voice typing. The researcher matched each transcript to the notes made during each participant's interview. The researcher read these transcripts numerous times to become familiar with each and started memoing (Creswell & Poth, 2018). The researcher reviewed sentences to identify the words most frequently used to represent workplace conditions and burnout and created initial codes of words and phrases. This process enabled the researcher to analyze each participant's voice, essential to collecting rich and meaningful data (Lobe et al., 2020). While viewing the transcripts verbatim, the researcher created a database of keywords and exercised lean coding by creating initial codes. Later, the researcher condensed these into 25 categories of conceptually-related codes (Creswell & Poth, 2018). After completing this process, codewords were copied into a new folder and renamed as initial codes to retain all original codes and data. The researcher arranged the new codes to align with each research question.

Qualitative research coding describes aspects of data, whereby thematic analysis identifies patterns in the data. It is the procedure the researcher must carry out between data collection and data analysis (Clark & Vealé, 2018). The researcher created codes comprising initials for each participant and other identifiers such as their workplace, medical qualification, and numerical sequence (Creswell & Creswell, 2018). All recordings are stored on a password-protected personal computer and in a secure, cloud-based database to ensure confidentiality and safekeeping (Creswell & Creswell, 2020). Afterward, the researcher shredded the paper

documents and wiped off external hard-drive files. Using digital software for data organization and analysis improved data analysis and theme interpretation. (Alam, 2021). The audio recordings provided additional evidence of the participant's rendition and information to the researcher's notes (Yin, 2018).

Summary of Data Collection & Organization

The researcher implemented a systematic data collection through the Well-Being Index and the SurveyMonkey application distributed via email and individual one-on-one interviews via telephone, Zoom, and physical visits of 21 participants using a 32-question interview guide. The researcher carried out a systematic data analysis process, as detailed by Creswell and Poth (2018), from the research questions in the interview transcripts to arrive at the conclusions. These data-gathering techniques are the most appropriate for this study, requiring the researcher to communicate rigor and robust research considering the complexity of healthcare in general (Salmon & Young, 2018). Interviews are most appropriate in case-study research because they involve human lives and phenomena (Yin, 2018). Studies have found that multiple strategies are necessary for research, but the internet is increasingly valuable for information collection (Salvador et al., 2020).

Data Analysis

The data source for this research was from the literature, interview transcripts, and the researcher's memos generated during the interviews. The primary goal of the data analysis was to make sense of all the information gathered from all sources (Creswell & Creswell, 2018). The researcher implemented data analysis to sort and organize information gathered from the instruments, gain insight into the study participants' experiences and perceptions, and draw an empirical-based conclusion. Qualitative research requires deep interactions with the data for

rigor, understanding, and theory development and formation (Maher et al., 2018). The research questions guided data analysis, as contextualization is essential to data analysis (Maher et al., 2021). However, research data analysis is the process that allows the researcher to interpret and make an inference that may include the development of a model or theory (Twining et al., 2017). It is a process that begins from the collection stage, comprising of information assessment and categorization for an empirical conclusion and inferences. Additionally, the researcher's self-immersion through continuous reading and familiarization with the tools and instruments allowed a better understanding of the data (Belotto, 2018).

Creswell and Creswell (2018) highlighted issues to avoid during the analysis process. According to the scholars, the common issues qualitative researchers experience include siding with participants, disclosing only positive results, disregarding participant privacy and anonymity, and other ethical issues that could compromise the research (Creswell & Creswell, 2018). Computer programs developed to organize data for qualitative analysis are the most used method of data analysis (Cypress, 2019). A qualitative researcher's data interaction level affected rigor even with computer-assisted qualitative data analysis software (CAQDAS). Survey and research data are analyzed using a description of the research setting or participants (Creswell & Creswell., 2018). Carolan et al. (2016) explained that case study research is a long-standing tradition for healthcare research that has grown in recent years. In healthcare data analysis, the researcher adopted the three concurrent and overlapping stances of philosophical, strategic, and integrative. Cases have different sides, and because different data sources produce different narratives determined by the difference in perspectives, which can sometimes conflict, the direction of data analysis often appears like a judgment call for the researcher (Pope & Mays, 2020).

Emergent Ideas

The researcher implemented an interview guide to identify emergent ideas. Utilizing the same interview questions and guide promotes the possibility of identifying an emerging idea. In multiple case studies, emerging ideas begin after building general explanations of each case. The researcher identified and labeled each pattern as a new idea within the emerging content analysis (Belotto, 2018). Researchers interpreted emergent ideas from the data (Creswell & Creswell, 2018). In a qualitative study, the researcher establishes the research goals in the research questions. Research questions are either central or subquestions (Roberts et al., 2019). The central question is broad and exploration of the main study concept. The central question leads to several subquestions that narrow the study's focus and become the interview questions. The interview would end with additional emergent themes within the content analysis. This researcher labeled each pattern as a new category of information (Belotto, 2018; Moser & Korstjens, 2018).

Coding Themes

Coding is the primary research analytical process. It is the categorization process of data with a name (Maher et al., 2018). It is a form of pattern recognition used in content analysis whereby emerging themes from the data become the categories for analysis (Roberts et al., 2019). From a large text segment, sentences conveying similar meanings were identified and labeled with codes, and the coded units led to theme identification (Belotto, 2018). A coding theme organizes data in segments representing a category (Creswell & Creswell, 2018). It involves taking the gathered text into segments and categories and labeling those categories with a term that captures the text's essence. Highlights and codable units emerge after reading the raw data and represent the researcher's thoughts and ideas (Roberts et al., 2019).

The researcher reviewed codes until themes emerged. Linneberg & Korsgaard (2019) described coding as transforming raw data into valuable data by identifying connecting concepts, themes, or ideas. Theme coding can be performed before, during, or after data collection, and the process begins with reviewing the literature (Ogrezeanu et al., 2017; Yin, 2018). Moreover, the process can occur before or during data analysis because the researcher could regroup codes according to the researcher's perception (Ogrezeanu et al., 2017). The literature was used as a coding guide to determine whether more codable information fit within the early findings or if it was necessary to create additional codes to the analytical framework (Roberts et al., 2019). The researcher then linked major themes from codes to form a pictorial depiction of the interviews and data analysis (Creswell & Poth, 2018). Identifying themes allowed the researcher to represent the data with the same idea and response to the research questions.

Creswell and Poth (2018) identified three categories of coding: the expected, surprising, and the codes of unusual conceptual interest. For this study, the expected codes were themes that are information based on literature or common sense. Surprising codes were unanticipated themes and codes of conceptual interest that were unusual. The researcher classified codes into themes, beginning with reading the transcripts several times, making notes as the ideas occurred, and evaluating the information provided in each interview document, including the underlying meaning. The researcher located similar information in the transcripts, assigned a code and then grouped the emerging codes to become a theme. Later, the themes became the headings, and the researcher analyzed the themes across the cases as part of the research outcome section. This information can be found in the headings of the findings section for the study (Creswell & Poth, 2018).

Interpretations

Most health-related interventions happen in complex systems of multiple evolving interactions (Paparini et al., 2021). The origin of scientific inquiry is the articulated hypothesis, which, even with the best rigor, is only the thoughts and worldviews of the author and is often imprecise (Clare, 2020). Deep interactions with the data are also prerequisites for interpreting qualitative research (Maher et al., 2018). The researcher applied thematic analysis to articulate participants' subjective meanings and experiences of a poorly misunderstood condition during these interactions. It is the best strategy to present the narrative interpretation of the commonalities of the participant's experiences (Xu & Zammit, 2020). The interpretation process involved identifying the relevant themes to the research questions, the context, and the theoretical framework (Roberts et al., 2019). The researcher began the initial process of thematic analysis and pattern recognition from documents, which allowed the developing meaning-making of the data (Pope & Mays, 2020).

Data Representation

The researcher made data representations for this study with diagrams, tables, and graphs. Data representation is a visual and logical representation of interrelated variables and concepts developed from the identified themes (Creswell & Creswell, 2018). Data representation develops from the identified themes. It is a form of pattern recognition used in content analysis whereby emerging themes become the categories for analysis because data drives actions and decisions when well presented. According to Creswell & Poth (2018), data represents relationships between themes to communicate research outcomes and findings to the reader. Qualitative research involves the social world, concepts, and human behaviors. It is essential to choose the most appropriate methods to represent these complex human interactions that can rarely or easily

be studied or explained. The researcher must think deeply about the research objectives and design choices.

Additionally, paradigmatic differences influence researchers' approaches to qualitative research and may reflect their findings' presentation. The emphasis remains that the researcher honors the participant's words as meaning and knowledge generation (Mauthner, 2019). However, in the modern, fast-paced world, presenting qualitative data that relies on dense transcribed text requires novel approaches and modalities beyond text. In healthcare research, context is a multifaceted concept incorporating multiple health system levels. The applicability and impact of qualitative research within the scientific community and in a greater social context depend on the effective dissemination of the findings (Roberts et al., 2019). The researcher reviewed transcripts multiple times to reveal stand-out and reoccurring terms, and an accurate theme representation became evident.

Analysis for Triangulation

Data analysis for triangulation for this study resulted from multiple data sources and analysis, combining interviews, note-taking, and literature to substantiate the findings and provide a more comprehensive description (Fusch et al., 2018; Noble & Heal., 2019). Ongoing analysis guided the next stage of data collection. Also, themes were established in multiple data sources, such as the researcher's memo and interview transcripts, because a single actor's story may be incomplete and thus flawed (Clare, 2020). Qualitative research allows multiple means of triangulation inherent in the broad spectrum of methods of data conduction and the applications of different perspectives of data. Unlike quantitative research, qualitative research's validity is sufficient information and extensive elaborations of instruments and sources.

Summary of Data Analysis

The researcher implemented a systematic data collection using the Well-Being Index and the SurveyMonkey application. The researcher distributed recruitment materials through email, and one-on-one interviews were conducted via telephone, Zoom, and physical visits. The researcher followed Creswell and Poth's (2018) systematic data analysis process. These data-gathering techniques were appropriate for this study because they required the researcher to communicate directly with healthcare professionals (Salmon & Young, 2018). Studies have found that multiple strategies are necessary for qualitative research, and the internet is a valuable tool for information collection (Salvador et al., 2020). The researcher created codes to develop themes, aligned them to the study problems, answering the research questions, and arrived at conclusions. Triangulation occurred throughout the study using multiple workplaces, multi-site locations, and multiple levels of interviews and other data sources.

Reliability and Validity

The combination of reliability and validity helped determine the trustworthiness of this study. Because a research purpose is to uncover the truth, data collection, and the research findings must contain minimal errors to prevent misleading users. The researcher often needs to establish reliability and validity through detailed explanations of methods allowing replication and, thus, the application of findings (Roberts et al., 2019). Reliability and validity in qualitative research refer to specific methods and steps acceptable for data collection. For this study, following these steps produced detailed and meaningful descriptions of phenomena. Even with the increasing qualitative research inroads to capture the attached meanings of healthcare social phenomena, such as burnout, qualitative research can enhance clinical knowledge and care using these steps (Collingridge & Gantt, 2019).

Reliability

Reliability is examining the instrument's stability and procedure to ensure consistent performance and solidifying research finding trustworthiness and replicability (Rose & Johnson, 2020). Research is fallible in human behavior studies, and a researcher collects evidence to which they have access (Creswell & Creswell, 2018). Researchers collect evidence to which they have access. However, they may later modify or even abandon such with the emergence of new evidence. In accepting these facts, to ensure the study's reliability, the researcher must prove that the data collection process possesses internal consistency enough to bring the same result as in the past to ensure that the instrument assesses the same underlying construct. The study findings can be reliable by ensuring a consistent data collection process, ensuring research credibility, transferability, dependability, and confirmability. Reliability is a function of trustworthiness that is more elevated when the researcher modifies the original instrument or combines multiple instruments. It is often more important to focus on strategies to ensure trustworthiness in the analysis and presentation of findings, as this is more important to ontological issues (Belotto, 2018).

Demonstrating reliability within qualitative is challenging when compared to quantitative research because there are no statistical tests for this purpose. The researcher substantiated analyses and findings of the literature review by thoroughly reviewing the interview questions for neutrality to ensure the application of significant control and uniformity. Ensuring well-crafted interview questions can improve reliability because awkwardly crafted questions can inhibit response and make participants less likely to share honest and accurate accounts of their experiences. Additionally, the researcher continuously assessed and deployed multiple data

collection techniques to prevent bias, including interviews and journaling (Belotto, 2018, Rose & Johnson, 2020).

Validity

Validity is essential to research trustworthiness in healthcare settings where the research informs practice (Roberts et al., 2019). Moreover, research validity is essential to ensure the applicability and utility of final research findings through the credibility of the conclusion and interpretation, which occurred in each process step (Coleman, 2021; Creswell & Creswell, 2018). Yin (2018) identified three forms of validity: (a) Internal validity, which questions whether the analysis represents reality; (b) external validity, which considers how the findings apply to other populations or settings; and (c) constructs validity, the most commonly applied, in which the researchers must consider whether the research measures constitute a good representation of the construct of the phenomenon. For this study, the researcher used various tools to ensure research construct validity for demonstrating and potentially increasing trustworthiness. These tools assisted with reducing inherent threats in interview-based research and increased the credibility of the conclusions (Coleman, 2021).

Validity is how research findings or study results become relatable when the suggested intervention applies to other clinicians or a larger population (Odibo & Acharya, 2018). The researcher hopes to increase data richness by reporting contradictory evidence in deviant cases (Coleman, 2021). Additionally, the researcher implemented member checking to validate reports by re-visiting already interviewed participants to clarify ambiguity and ensure that the analysis appropriately documented their descriptions of experiences. The researcher prioritized the interview transcription over field notes for a more in-depth and revealing analysis.

Bracketing

The researcher bracketed this study by approaching the topic with neutrality and disclosing their personal biases (Weatherford & Maitra, 2019). The researcher's self-awareness as both a research device and a social entity with political, emotional, and cultural worldviews dictated self-scrutiny and mindfulness of the necessary self-presentation to avoid any potential influence on the research. Intellectualizing the topic minimized any emotional investment beyond the researcher's (Gregory, 2019). Bracketing is a theoretical and philosophical construct at the center of objectivity. Dörfler and Stierand (2021) postulated that lived experience is essential to descriptive data analysis, and the researcher must bracket themselves from the study by acknowledging their opinions and biases through the reflexivity process. For this study, the researcher practiced bracketing at every step of the research to gain perspectives from the physicians to provide an accurate description of their experiences (Dörfler & Stierand, 2021). The researcher took notes during the interviews that were later utilized during analysis to raise any bracketing awareness missed during interviews. Creswell and Creswell (2018) suggested that researchers disclose past experiences and how they may shape interpretations. For this study, the researcher disclosed all potential biases that could harm the study.

Data Saturation. Data saturation through mechanical recording enhances validity (Coleman, 2021). As described in the previous section, the Zoom conferencing technique significantly reduced validity threats associated with interview data collection. Creswell and Poth (2018) stated that data saturation occurs when the information becomes redundant, and the researcher no longer receives new information. For this study, the researcher suspected data saturation occurred after interviewing 18 participants. An additional three interviews confirmed

data saturation, and no new knowledge or information was obtained. Therefore, the researcher declared that the data saturation point had occurred.

The researcher also increased data richness by reporting contradictory evidence in deviant cases (Coleman, 2021). The researcher also implemented member-checking to validate reports by re-visiting already interviewed participants to clarify ambiguity and ensure that the analysis appropriately documented their descriptions of experiences. The researcher prioritized verbatim interview transcription over field notes for a more in-depth and revealing analysis. Additionally, at the end of the study, the researcher shared the study report with participants for a feedback opportunity at the participants' convenience. Also, data from various sources, including physician managers, concerning documented sources such as the physician turnover rate and exit interview reports of physicians who left the workplace acted as complementary perspectives on the phenomenon.

In order to provide the most excellent knowledge possible about burnout, this researcher interviewed participants from multiple healthcare settings to ensure validity. The organizations comprise small and large workplaces comprising hospitals, integrated managed care organizations, retail ambulatory care settings, and independent practice physician care providers. Furthermore, these settings provide a broader understanding of the workplace as it is likely to be easier to spot similarities and differences (Pope & Mays, 2020). In a qualitative study, the need for multiple sources of evidence exceeds that of quantitative research, where validity relies heavily on calculations, measurements, and numerical analysis and accuracy (Sawatsky et al., 2019).

Triangulation. Triangulation is an essential part of qualitative research, which refers to using multiple methodological resources to promote research reliability (Natow, 2020). Creswell

& Poth (2018) stated that triangulation occurs when a study uses multiple data sources to corroborate the information from participant interviews. For this study, as it is in case study research, the sample size was small, and the researcher was responsible for ensuring that the information received from participants was credible and helped fill in the missing gaps. According to Shea (2022), preliminary evidence tends to be fresh and may either support a theory or lead the investigators in the wrong direction. The researcher applied the most recent literature and constant comparison approach. Additionally, the researcher repeated the examination of new findings to solidify any conclusions because doing this reinforced the antecedent merging of earlier conclusions or contradictions (Shea, 2022).

Member Checking. It is an informal process to solidify the participants' responses and is used to create the completed research's worthiness and confirm the validity. The member-checking procedure is vital in a qualitative study, and researchers employ it as a reflective experience (Candela, 2019). This researcher sent a transcribed copy of the interviews to participants for review and verification as a member-checking process. The researcher allowed participants five working days to review the transcripts for accuracy and make corrections. Implementing member checking by returning the final interview transcripts to the participants allowed them to confirm the accuracy (Creswell & Creswell, 2018).

Follow-up Interviews. This researcher notified participants of their contribution to the findings to validate their responses for accuracy. The researcher reviewed the interview transcripts with each participant to ensure the accuracy of the information and the researcher's analysis and categorization of their data (Creswell & Creswell, 2018). Qualitative methods offer a unique explorative contribution to health research that differs from the logical positivism of

quantitative methods (Clare, 2020). The analysis of interviews illuminated individual perceptions and opinions, which a researcher may erroneously misrepresent.

Summary of Reliability and Validity

Reliability and validity are crucial aspects of research to ensure trustworthiness. Although both are not companions, ensuring research reliability and validity are crucial and fundamental issues in healthcare with the increased popularity of qualitative research application that improves the standard of findings (Collingridge & Gantt, 2019; Creswell & Creswell, 2018). Case study research is a valuable communication medium because of its inherent real-life research practices that make the world visible (Sawatsky et al., 2019; Yin, 2018). This vital attribute gives it an edge over other qualitative research methods because the measurement of qualitative research depends on its validity. The presentation of a single trustworthy research-based evidence sometimes is the incentive needed to draw attention to the general problem, thereby representing the source of information that transcends the single introductory case, especially to non-specialists, which makes the case study research a far more critical mode of information dissemination than a typical research report. Krupat and Hall (2021), however, warned that although instruments need to demonstrate reliability and validity to be helpful, the rigidity towards the validated instruments to the point of excluding new ones obligates researchers to inadequate construct instruments, thereby missing the reality of alternative orientation to reliability and validity as new or modified instruments might be an easy subject of attack.

Summary of Section 2 and Transition

In Section 2, the researcher discussed the method, the study participants, and the sampling. Additionally, the researcher discussed the data collection and organization, data

analysis, and the reliability and validity of the project. This section helped the researcher develop essential skills to design and conduct interviews through relational focus and practice interview facilitation skills. Conducting qualitative case study research required careful planning for efficient data collection and analysis to ensure the themes identified in the research findings were of the highest quality and addressed the problem and the research questions. Implementing a qualitative, multiple-case approach was appropriate for this study because it focused on a group of individuals from a particular setting, which consisted of care workplaces.

Qualitative research offers a flexible approach to enable a holistic, in-depth, multiple-perspective examination of the phenomena essential for studying health and illness within real-life contexts. This study took a pragmatic approach to better understand the physicians' perspective in their real-life clinical settings and enabled the researcher to conduct in-depth discussions about the phenomenon. The researcher entertained multiple versions of the truth while focusing on the research problem and the guiding philosophical belief that usefulness, results, or anticipated outcome determine truth and human experience, and needs determine meanings. Therefore, the pragmatic research paradigm belief of the researcher also pairs well with this study methodology as it embraces many forms of knowledge (Long et al., 2018). Specifically, data collected for the study came from the participant screening surveys and their interview transcripts. The ongoing Covid-19 pandemic limited physical participant interviews; most were conducted online on a web-based video conferencing platform and over the phone.

Section 3 includes a general overview of the study, findings, recommendations for action, and further studies. The researcher provided an in-depth discussion of the findings and the themes presented for the study. Additionally, the researcher commented on their reflections and

highlighted the findings from a Christian worldview perspective. Furthermore, the researcher made recommendations for further study to conclude this study.

Section 3: Application to Professional Practice and Implications for Change

Overview of the Study

This qualitative multiple-case study investigated the workplace conditions contributing to physician burnout in Maryland State. In this study, the researcher sought to answer the research questions of what, why, and how work-related stress among physicians working in primary care workplaces. The study implemented a purposive sampling of physicians in multiple workplace settings using semi-structured interviews. The study participants were medical doctors (MD), Doctor of Nursing practitioners (DNP), and nurse practitioners (NP) in primary care from multiple healthcare systems in Maryland and Washington, D.C., suburbs. The types of healthcare facilities consisted of: (a) Federally Qualified Healthcare Centers (FQHC), (b) tertiary healthcare organizations, (c) for-profit organizations such as retail ambulatory clinics, (d) managed care organizations, and (e) independent primary care physician facilities. The findings present a narration of the semi-structured interviews, and the participant data is evaluated and displayed in a table. This multiple-case study aimed to better understand the workplace conditions contributing to physician burnout. The research approach is from the well-being framework and focuses on the organizational workplace settings.

Presentation of the Findings

The study findings resulted from data collected from 21 primary participants consisting of medical doctors (MD), Doctor of Nursing practitioners (DNP), and nurse practitioners (NP). The study participants are practicing physicians in primary care settings such as family practices, internal medicine, general pediatrics, geriatrics, obstetrics, and gynecologists. The researcher also interviewed an additional advanced nurse practitioner and managerial personnel participant for data triangulation. Primary care physicians represent their patient's primary point of care,

providing a full range of primary care services and coordinating patients' healthcare service needs (Everett et al., 2019). Patients rely on primary care physicians to diagnose, treat, or manage various health issues. Additionally, they prescribed medications and helped patients with preventive care such as physical examinations and general health advice.

Each participant completed a Physician Well-Being Index survey distributed via email through the SurveyMonkey application. The survey (see Appendix B) consisted of nine questions developed by the Mayo Clinic physicians specifically for physicians. The researcher predicted that the survey would take approximately five minutes for the participants to complete. Each survey question prompted the participant to provide a “Yes” or “No” response. This population is essential for this study because primary care physicians constitute the most prominent physician specialty group. First, the literature documented that they are at the highest risk of burnout in U.S. healthcare because of their presence at the forefront of care delivery (Chung et al., 2020; Fred & Scheid, 2018; Ofei-Dodoo et al., 2021). Second, their distribution was more proportionate to the population distribution than other physician specialists. They operate in almost all healthcare settings and workplaces, including (a) hospitals, (b) ambulatory care, (c) urgent care centers, (d) hemodialysis, (e) pediatric care, (f) obstetrics and gynecology, (g) rehabilitation centers, (h) nursing homes and other long-term care facilities, (i) specialized outpatient services, and (j) behavioral and mental health workplaces (Xierali & Nivet, 2018).

The researcher sought participants from various workplaces to obtain comprehensive data from as many different settings as possible because the most crucial consideration for this study remains that of the workplace, including the dynamism of the practice setting. All participants answered the questions in a relaxed environment of their choice. Some participants allowed their interviews to be video recorded, while others preferred to be audio recorded. This researcher

protected identifiable information in a secured and password-protected database only available to the researcher. Code names were assigned to participants during the collection phase of the interview to protect the participants' identities and maintain confidentiality, which was applied immediately after each interview session.

The following sections document the research findings in detail from the thematic coding of 21 semi-structured physician interviews in eight healthcare workplaces. The results were from the qualitative analysis of a 32-question guide (see Appendix A). Also provided is a discussion of the reliability and validity of the data to ensure its trustworthiness. The presentation concludes with a discussion of the application of the results to business practice, strategies for applying the results to business practice, and reflections on personal and professional growth resulting from engaging in the research project. The researcher designed the 32 open-ended question guide to achieve an appropriate set of questions best suited to all care workplaces. For instance, management questions were administered differently in different workplaces because of diverse management structures.

To recruit participants for the study, the researcher sent emails to groups, posted recruitment flyers on social media, and made calls to publicly available phone numbers soliciting participants. Forty-nine primary care physicians returned the survey, and 21 met the inclusion criteria and participated in the study interview. The researcher suspected saturation after the 18th interview and interviewed additional participants to confirm saturation. The researcher reviewed the consent form with each participant and answered questions about the study before beginning the interviews. Also, the interviews took place in the locations of each participant’s choosing through Zoom conferencing, telephone, or in person at the participant’s chosen location. Interviewing this population was challenging, as several telephone calls and emails went

unanswered. Some interviews took place at a moment's notice. One of the organizations has an in-house IRB organ and requires the researcher to apply for research permission. The process later turned out to be mere approval for staff members to participate and nothing about informing their physician employees about the research or an introduction to the physicians. Recruitment difficulties are understandably related to physicians' demanding schedules, which made it imperative that the researcher make extra-ordinary schedules to catch them only at odd times, such as in-between patient visits and, on two occasions, in-between multiple patient visits to complete an interview with a single physician while maintaining the same stipulated COVID-19 precautions to patients and visitors. As shown, Table 2 depicts the analysis of the interviews where participants shared their burnout experiences. The researcher listed individual depictions in the order of their interviews, practice workplace, time in practice, and the interview length.

Table 2

Participants' Information

Participant Code	Time on the Job	Interview Length	Participant Code	Time on the Job	Interview Length
P01	22 years	01:02:00	P12	10 Years	01:07:52
P02	27 years	0045:00	P13	3 years	00:46:45
P03	13months	0032:02	P14	18	00:39:37
P04	12 months	0029:14	P15	9 Years	00:31:14
P05	9 years	001:20	P16	23 years	0050:02
P06	18 months	01:00:57	P17	2.5Years	0031:42
P07	14 months	00:40:34	P18	18years	00:15:13
P08	7 months	00:56:11	P19	3 years	00:41:01
P09	13	00:40:14	P20	2.5 years	00:47:07
P10	2 Years	01:06:46	P21	13 years	00:46:16
P11	23 Years	01:15:51			

Themes Discovered

As shown, Table 3 depicts where the researcher organized the study findings into themes emerging from interview data. The analysis began with the researcher verifying the research questions (RQ) Alignment/Initial Codes and the participant questions and responses.

Table 3

Theme and Question Alignment

Research Question	Interview Question	Research Question (RQ) Alignment/Initial Codes	Theme
RQ1. How have workplace conditions affected the likelihood of physician burnout?	1. How does your organization/employer contribute to this feeling of stress?	Administrative tasks	Excessive Workload
	2. Which part of your job duties or functions brings you the least satisfaction?	EHR tasks	
	3. Describe a high point when you felt less burned out. What were the factors responsible for this experience?	Staff shortages	
RQ2. What workplace conditions or experiences are responsible for contributing to physician burnout?	1. How does your employer contribute to undesirable workplace conditions?	Insurance tasks	Healthcare Financing and Insurance
		Inadequate training	
	2. Describe workplace economic measures or conditions such as reduced or eliminated resources and services for physicians and patients for cost-cutting purposes, contributing to your burnout condition.	Old structures and outdated equipment	Workplace Resources
		Inadequate remuneration	
		Limited time with patients	
RQ3. How do physicians describe their experience with burnout, and how does burnout contribute to physician attrition or shortage in this care facility?	Describe the psycho-social workplace conditions contributing to your burnout	Increasingly litigious work environment	Systemic issues
		Inequitable work	
	Describe the organizational policies that are causing you to experience burnout	Regulatory requirements	
		Performance metrics requirements	
		Long work hours	
		Increasingly high acuity patients	
	Do you have any additional workplace information you consider necessary which were not addressed by the interview	Workplace discrimination	
		Loss of autonomy	

	questions?		
	Would you say that the COVID-19 pandemic has had a significant contribution to the feeling of stress and burnout?	Overall feelings of helplessness	COVID-19 pandemic
		Increased exposure to mortality and morbidity	
		Second victim syndrome	

Table 4.

Table of the Themes Discovered

Theme #	Theme
Theme 1	Excessive workload
Theme 2	Healthcare financing and insurance
Theme 3	Workplace resources
Theme 4	Systemic issues
Theme 5	COVID-19 pandemic

Interpretation of the Themes

The researcher conducted interviews and obtained detailed responses from the participants using semi-structured, one-on-one interviews via telephone, Zoom, and physical visits. After the interviews, the researcher developed transcripts of the interviews by electronically transcribing the recorded interviews from voice to text with the help of voice typing. The researcher matched each transcript to handwritten notes during each participant's interview. Next, the researcher read the transcripts numerous times to become familiar with each transcript before commencing memoing (Creswell & Poth, 2018). The researcher reviewed sentences to identify the words most frequently used to represent workplace conditions and

burnout and created initial codes of words and phrases. This process enabled an analysis of each participant's voice, which is essential to collecting rich and meaningful data (Lobe et al., 2020).

The researcher utilized the interview transcripts to create a database of keywords and exercised lean coding by creating initial codes. Next, the researcher condensed these into 25 categories of conceptually-related codes (Creswell & Poth, 2018). After completing this process, codewords were copied into a new folder and renamed as initial codes to retain all original codes and data. The researcher arranged the new codes to align with each research question. Five main themes emerged after combining identical codes categories to reveal the essence of the phenomenon of the physician's workplace burnout conditions and the dynamism of the healthcare workplace. The themes are workload, financing and insurance, workplace resources, systemic issues, and the COVID-19 pandemic. The information collected was used to answer the three research questions guiding the study. The researcher concluded section three with a summary of outcomes and transition to the application to professional practice. The following describes the thematic coding of the research findings and the detailed analysis.

Theme 1: Workload. Workload refers to the volume of non-clinical tasks, including work intensity, hours spent at work, and the physician's emotional demands (Hardy et al., 2020). All 21 participants unequivocally cited excessive patient workload as the primary cause of stress and burnout and a well-being determinant among physicians and other healthcare professionals. Workload factors included electronic health record (EHR) usage involving patient data reviews performed for each patient required for visits, note writing, treatment order placement, and review of clinical inbox messages, which often increases time spent on each patient visit (Lou et al., 2022). Patient load, measured as the number of patients seen per day, also influences workload, affecting all of the visits, such as the number of ordering sessions per patient and time

spent writing notes. Workload also includes provider time demand, individual and aggregate patient acuity, workflow, and the after-hours demand for their time (Pastores et al., 2019).

Theme 2: Healthcare Financing and Insurance. In the U.S., there are variations in healthcare funding, and private health insurance plays a leading role in care financing. The healthcare organization and the insurance provider agree to finance healthcare mainly provided through employers (Shi & Singh, 2022). The employer groups purchase health insurance for their employees from registered insurance companies in Maryland, known as employer-based health insurance. For low-income earners and individuals aged 65 and older, insurance is available from a single, government-run insurance program known as Medicaid and Medicare. Therefore, government insurance provides a near-universal exit from commercial insurance policies around age 65 and as a public health safety net. The complexity of healthcare financing adds to access and demand difficulties because it is often difficult to determine what type of care, and physicians often need to determine eligibility before providing services (Shi & Singh, 2019).

Theme 3: Workplace Resources. Healthcare resources included supporting mechanisms that enabled the physician to perform job functions comfortably and adequately (Joanna et al., 2018). They include tangible and nontangible resources required for an efficient workplace. The U.S. is among the highest healthcare spenders and one of the most expensive health systems compared to other industrialized countries because the high spending is often wasteful (Rovner, 2019). There is an increasing mismatch between the demand for healthcare resulting from changing demography compared to available resources. Resources such as workplace support system, which is essential for learning, are declining. Additionally, there is a decline in reimbursement, which is significantly more consequential among independent workplace physicians with no government backing or system affiliations. They tend to experience

difficulties making capital expenditures, such as investments in EHR platforms (Del Carmen et al., 2019).

Theme 4: Systemic Issues. Systemic issues affecting physician well-being occur in a multitude of ways. Some affected physicians directly, while some created frustrations for physicians because of the helplessness of conditions. Systemic issues cited by the participants included the hyper-litigious system, healthcare regulatory requirements, healthcare disparity, and discrimination in care delivery by the medical community. Systemic issues included workplace discrimination experienced by minority physicians and healthcare disparities that prevented physicians from delivering care to all groups (Ho & Dascalu, 2021). The care received reflected that minorities are at the bottom of the social hierarchy.

Theme 5: COVID-19: Coronavirus disease (COVID-19) is an infectious disease caused by the Sars-Cov-2 virus. In December 2019, the global pandemic started in Wuhan, China, and the virus spread to almost all countries and territories (Pokhrel & Chhetri, 2021). The primary public prevention strategy was six-feet physical distancing between individuals. Other measures included handwashing, wearing face masks, and avoiding mass gatherings and assemblies. The U.S. documented 92,781,519, and there were 1,191,962 confirmed cases of infection in the U.S. and Maryland, respectively (John Hopkins University JHU, 2022).

Interpretation of the Sub-themes

Theme 1A: Excessive Workload. All the participants unequivocally expressed that excessive workload is the single most serious workplace condition contributing to stress and burnout. This response was not unexpected as physicians are known to have busy schedules coupled with the fact that medical practice is inherently a challenging profession. The researcher asked each participant to explain how the organization contributed to the workload. Excessive

workload often refers to the intensive functions associated with long work hours and the increasing after-hour work out at home. Physicians described factors such as chaotic work environments, lack of alignment between time and productivity pressures, and lack of autonomy in self-determination. Physicians explained the emotional demands of the work intensity and time and how this takes away time from leisure and loved ones.

Furthermore, inefficient work processes and environments further complicate work and lead to excessive workloads. Workload intensity varies with each workplace setting. In ambulatory care physician workplaces, the workload often involves volumes in which physicians, specifically those in private practices, must schedule an excessive number of patients daily to achieve the required economy of operating scale. Physicians explained that there is a standard patient no-show rate of 20-40% daily; therefore, primary care practices generally overbook their schedules. The workload often increases on days that all patients attend their appointments.

Physicians in ambulatory workplaces expressed that the workload was heavy because of a lack of supporting staff, such as a healthcare concierge to seat patients and assist with check-ins and general directions. In retail, for-profit ambulatory workplaces, the physician performs all these functions in addition to the core clinical patient care. To distinguish patient-related challenges from those that are organizational or management-related, the researcher asked physicians to explain: “How do you think that the organization contributes to the high workload” Participant P06 of the ambulatory workplace responded:

> By not providing patient concierge or dedicated staff for patient triage. I could never get through an entire visit or lunch without someone knocking on the door requesting general

> service information, clarifications about care, or simply checking in for their appointment.

P10 of a tertiary-affiliated and more traditional healthcare workplace painted a more severe contributing condition to the same question, replying that "I have patients that have not only physical needs but also psycho-social needs, which requires me to reach out to a social worker or a counselor for help, all within the 20 minutes allotted to the patient visit."

Another dimension to the complexities of workplace conditions is the reality of the difficulties embedded in care coordination. P13 and P16 of a tertiary hospital workplace and the military hospital participants analyzed how this increased the work volume. P16 described an example:

> Particularly amongst those individuals with very high acuity because a lot of stuff is going on, a lot of referrers going on. Sometimes you can have orthopedic activated, and you can have urology activated, nephrology activated, psychologist, psychiatry activated, and neurology activated all on one person. I got (am) one person. All of these consults are coming back to you, and you got to follow all of those different elements or those diagnoses, and imagine you having 10, 15 people on your roster that week with all of that follow-up and being short-staffed at the same time. That can create a really big problem with burnout, even if you have a passion.

In this analysis, participant P16 described how workload impeded well-being and stated that their work does not end at the workplace, as they often take work home or remain in the office after business hours. Other physicians in similar workplaces and those in independent practices described similar situations in the number of hours worked. P01, P02, P09, and P10 reported completing tasks such as responding to requests and messages from patients and other

physicians, such as when they needed to monitor a patient's progress and provide updates. P09 and P10 elucidated that this is part of their clinical tasks and standard clinical practice to receive updates on critical cases. The workplace differences are apparent here because the after-hours work composition differs for different workplaces and settings. After-hour tasks are often unstructured or unplanned for some retail and ambulatory settings. However, the study participant explained that this is not uncommon in healthcare. Participants in ambulatory workplaces said that they experience less frequent occurrences of after-hour work because they, on the other hand, spend extra hours at work to ensure task completion. However, they confirmed that they have to work after hours from time to time. P19 described:

> Your name is on all of these patients' files when they're printed out, and if you take my name and you google my name, my phone number is going to pop up. So, I have even gotten patients here call me up. They had a physical form that needed to be signed or something, and that person (another physician) didn't do it or couldn't do it. I have had people call me up, and I have actually got in my car and gone to meet them somewhere. They said, "my son would not be able to participate in their sports event without that stamp or without that signature," and no one put a stamp or signed it or whatever the case may be, so they googled my name and called me, and I have had to stop what I am doing and go because who wants to get that on their conscience right! Kid couldn't play or whatever, so yeah, it doesn't stop when you get off, and you get caught up.

P05 added:

> I had to go find this patient that was seen by another physician because the lab called that the urine specimen was collected in the wrong container. I drove down there to collect another sample and then had a flat tire on my way there. Good thing is, it was my off day.

In workplaces where patient volume is structured and unarbitrary or subject to economies of scale (i.e., the situation in large clinics or hospitals), care coordination involves the engagement and scheduling of other care teams needed for outpatient care and transition. In addition to care coordination, hospital workplace physicians are often involved in patient discharge tasks to minimize readmissions. This arrangement allows them to manage conditions and schedule follow-ups after a hospital stay, especially for Medicare and Medicaid patients, who constitute three-quarters of readmissions with a reported yearly estimated cost of $12 billion. Care coordination contributes to workload because it involves much clerical work. According to P13 of a tertiary hospital workplace, “offloading discharge paperwork will help us.”

Participants also described the unnecessary tasks which made the workload more challenging. Mainly, the tasks are required for the sole purpose of organization revenue generation. According to P19 at the ambulatory workplace:

> If you're working for a system, there are a lot of quality factors or quality elements that have to go into place, they're going to hold you to those standards, and at the same time, you only have a short time frame to implement those standards or carry out those standards. I can give you an example a patient comes in here for hypertension, the system is going to want you to do a sleep apnea screening on them, and at the same time, the patient may not want that screening done, and if you don't do the screening or if the system indicates that you're not doing enough of those screenings then perhaps it can affect your overall performance evaluation.

Furthermore, physician workload is complicated by the aging population, changing disease patterns, and advances in medical science, whereby people with advanced diseases now

live longer and increased chronic care needs (Schenker & Costa, 2019). Effective management of patients with chronic diseases requires well-developed care coordination to ensure continuity of insurance coverage and avoid needless administrative complexities. Fragmentation and discoordination is a significantly unique healthcare problem, often resulting in inappropriate care and contributing to increased healthcare costs. P21 emphasized that "people are sicker now than before, and you have to do more." At face value, this last expression from P21 appears to be embedded in medical practice and not necessarily workplace-related. However, the implication of this statement brought us to the effects of electronic healthcare records (EHR), and is further analyzed in Subtheme 1B.

Subtheme 1B: Electronic Health Record (E.H.R). A significant component of workload is the Electronic Healthcare Record (EHR) tasks (Grow et al., 2019; Kao et al., 2020). The EHR is a vital part of the digital, real-time health information version of a patient's paper chart designed to make information such as medication history available instantly and securely to authorized users. Initially, the EHR houses a patient's medical history, including diagnoses, medications, treatment plans, immunization, allergies, and test results to improve patient care and decrease errors through increased legibility, comprehensiveness, and easier access to patient information (Bhavaraju, 2018; Bisrat et al., 2021). Additionally, the EHR is a tool where healthcare processes are embedded, which has, however, morphed into a tool in which most healthcare processes are embedded (Kruse et al., 2022).

Literature documented that primary care physicians spend about two hours interacting with the EHR for every hour of patient contact. In addition, up to 4.5 hours of the physician's time is taken up by EHR documentation during the day, with an additional hour and a half in the evening and after-hour tasks (Arndt et al., 2021; Yates, 2020). The clerical burden of EHR

reduced the joy of the medical practice because of the less time spent interacting with patients (Downing et al., 2018), as 16 of the 21 participants identified EHR as a primary workplace burnout contributor. When the researcher asked how the organization contributes to the EHR problem, tertiary-affiliated workplace participants responded, "the EHR enables us to work from home, even when I don't really want to, and it takes away from family time" (P10). For other workplace participants, "it takes away from direct interaction with the patient" (P21) and similar statements from others.

Furthermore, the EHR embodies system evaluation and enhancement necessary for tailoring the system to practice (Sequeira et al., 2021). Although it may be advantageous overall, some participants indicated that a significant amount of time on documentation is just a waste of their time. Additionally, these system evaluation and enhancement tasks are continuous. These are either workplace quality requirements or specifically mandatory for many governmental or insurance-initiated requirements, including Medicaid and Medicare. P16 described the work volume embedded in the EHR as "unnecessary" and "the patient doesn't want it but is also designed for money-making purposes by the organization" and represents excessive data entry requirements only for healthcare performance and quality metric requirements. Furthermore, P16 analyzed how important the EHR tasks are to the establishment rather than the physician's work because a significant amount of the tasks are performance metrics and a time waster to the physician:

> It's not because you don't want to do them; it is because the patient doesn't want them done, right, and so when you're trying to carry out those specific requirements and the state compliant or whatever the case may be and then at the same time you worry about having a job the next day if those requirements are not done. At the same time, you ask

> the patient questions about this, and that, and they get turned off from those questions, they shut you down, and as a result, the visit can go bad, and you complete the visit, but then you've got to worry about what they gonna (going to) say about you after the visit.

The physicians mostly lamented that many metric-related tasks, such as patient satisfaction, speed of task processing, and inbox messages response time, introduced to assess physician performance, although aimed at service and healthcare improvement, are imperfect. The EHR is a barrier to quality healthcare (Shanafelt et al., 2019).

Subtheme 1C: Physician Shortages. Participants described experiencing severe staff shortages even before the COVID-19 pandemic. Participants P07, P08, P09, P14, P16, P18, P20, and P21 recounted that staff shortages are a single primary condition for stress. As detailed by the participants, especially in non-ambulatory settings, staff shortages include physician shortages and other non-physician staff shortages. Participants reported that physician shortages are due to attrition and the continuous cyclical relationship between burnout and physician shortages. New physicians find the job overwhelming and unmanageable. They exit the organization or reduce work hours. Experienced ones also partially or fully disengage from medical practice.

In describing their experience, the military-affiliated hospital workplace, P16 responded, "yes, there is always a shortage" (of physicians). Attrition and burnout have a cyclical relationship. Physicians complained of stress and burnout resulting from physician shortages. P15 was sure that the single cause of burnout is physician shortages, such that when approached for an interview, the participant was initially adamant with their simplistic response that "physician shortages is burnout." This response was their simplistic analysis that the primary cause of physician burnout is a shortage of physicians. In explaining the burden of physician

shortages on well-being, the participant was highly emotional and described the frustration in the chaotic environment resulting in a low ratio of physicians to patients. The participant described this scenario:

> You are covering so many units. So many times, you ask yourself, what is going on? As you are trying to figure out what to do with one patient, and your pager is going off the chain because they are calling you for another, and one (physician) is covering multiple units within the same facility.

In addition to physician shortages, participants P09, P10, P13, P14, P15, P16, P17, and P20, in large workplaces and P10 and P11 in independent practices also cited the shortage of non-physician staff and its well-being consequences. However, in considering the impact of staff shortages, it is necessary to consider the impact of other non-physician healthcare workers and their contribution to burnout. Fargen et al. (2020) reported a high and worrisome attrition rate and a high percentage of non-physician procedural (nurses and radiology technologists) staff from 20 different independent hospitals strongly considering resignation from a survey and study of attrition in non-physician hospital workers whose work duties affect personal and professional satisfaction.

In support of the academic literature, the influence of physician shortages came up throughout the interviews. P10 reported:

> I am calling pharmacies and calling insurance companies for prior authorizations to justify why I'm doing a particular thing. If we could have medical assistants, if we could have pharmacy techs, if we can have, you know, a more multidisciplinary approach, so that each person has a role, and it's all in support of getting the best care for this patient. That would allow me to just focus on making the decisions, you know, that would lead to

> better health outcomes if we as a team can, you know, delegate responsibility. And that's one of the reasons why being an understaffed clinic is so detrimental because there are not enough people to delegate, and so then it's left to the physician to do all the things, which is really stretching.

This theme is more prevalent in nonprofit workplaces where it is even more challenging to attract auxiliary and non-physician workers. P14 articulated, "I need auxiliary supports to determine the formularies to figure out what medication is approved or not by insurance." The academic literature indicated an even more critical looming physician shortage in the US, with a current estimate of 55,200 primary care physicians by 2032 (Sterling et al., 2022). Primarily, the cause of the shortages was due to the rising attrition rate from the increasing aging population, a decreased supply of physicians due to retirement, and low interest in primary care among new medical graduates (Zhang et al., 2020). The researcher predicted that the number of positions available would outpace the number of newly trained physicians (Zhang et al., 2020). The problem of physician shortage was a factor in the utilization of nurse practitioners (NPs) to fill the gaps in physician coverage, especially in ambulatory settings.

Physician shortage cuts across all workplaces; however, new dimensions exist depending on the care setting. In explaining the effects of the shortage on their department and the physician's well-being, P16 explained:

> We are down to about maybe two providers right now (from six), and you get overwhelmed, and my department right now requires a lot of just being able to stay on top of things, whereas their (patient's) diagnosis can change in a minute, so it's a really, really high stressful area.

Theme 2: Healthcare Financing and Insurance. The American healthcare system is highly revenue-driven and the most expensive in developed countries (Patricio et al., 2020; Rosenthal, 2018). In the U.S. healthcare system, insurance companies function as the system's agents, similar to the work conducted by politicians, administrators, and pharmaceutical companies (Sturmberg & Bircher, 2019). High costs characterize the system without commensurate quality, and the U.S. scores poorly on many vital health measures. One reason is that changes in insurance plans decrease the likelihood of establishing a stable primary care relationship, decrease rates of chronic disease control, increase reliance on subspecialists for primary care services, and are associated with greater use of emergency departments.

Theme 2A: Insurance Access. Insurance challenges described by the physicians include access challenges because of their effect on which patients they are allowed to serve, and the types of services covered. Part of the problem is healthcare access and how it distracts from focusing on care provision. The participants clarified that they are not involved in the billing process but bear the burdens. They have to be mindful of the patient's insurance to determine what type and extent of care they can provide because narrowing insurance networks have decreased access and, in turn, eroded care continuity. Although, the healthcare reform contains provisions that may reduce physician stress through steps such as pre-existing condition coverage, medication coverage, and streamlining insurance claims to improve care and access and reduce physician workload and stress (Crowley et al., 2020). However, the health payment system still affected well-being as physicians received many fallouts of insurance-related issues for the underinsurance and uninsured. P10, from a tertiary affiliated healthcare hospital system, described how the organization contributed to this stress:

> Even one step before the organization, I think we need more physicians leading the discussion about, you know, insurance and reimbursements and what's to be covered because, you know, insurance companies are run by businesspeople, people, right? Focused on making money, not physicians who have, you know, the priority of the. Patient.

Part of the insurance challenges is related to insurance literacy. The U.S. healthcare system tends to delay or deny high-quality care to those who need it most due to its high cost and literacy, which affects healthcare utilization and attitudes (James et al., 2020). As a result of its high cost and literacy, it affected healthcare utilization and attitudes (James et al., 2020). One significant reason for the Affordable Care Act (ACA) Medicaid expansion launched in 2014 was to improve access to health insurance for low-income people (James et al., 2020). However, the limited understanding impacted effective utilization, burdening physicians with filling this crucial gap. P01 of a private practice stated, "Some patients do not understand their insurance because, you know, it can be complicated."(P01).

Health insurance literacy improves access to preventive services such as those provided by primary care physicians. As a central part of the discussion on insurance, the physicians lamented the critically dysfunctional impact of the healthcare payment system, which P21 of the private practice described as "the bureaucracy of, you know, filling, it really does put a damper on why we put in so much time to do this" due to the difficulty in navigating the payment system.

Insurance pre-authorization also came up, where participants described pre-authorization for drugs and consultation coverage as challenging and time-consuming. P10 detailed stated:

> There is a lot of red tape related to what we call prior authorizations. That's where we have to call the insurance and justify why we are prescribing a particular medication, and that's an administrative hassle. It creates a lot of, you know, distractions from direct patient care when we have to continuously justify why we're, you know, prescribing a particular medication so that insurance will, you know, make up their mind about covering it or not. The medications I prescribe, the referrals I place, and the specialist I recommend are often influenced by the person's insurance. So even if I wanted to give them a particular medicine, I know their insurance won't cover it. So, then I have to pick an alternative.

P07 stated that another problem with insurance literacy is its contribution to disparities for minorities, people of color, and other disadvantaged groups. Also, fragmentation in health insurance means that physicians must familiarize themselves with economic initiatives to reduce healthcare costs, increasing stress. Administrative load detracts from the primary tasks of providing care. Participants expressed dissatisfaction with healthcare insurance's influence on how they perform their jobs. P15, whose workplace is a psychiatric hospital, discussed insurance payments, lamenting, "some people (patients) you are supposed to see, the previous visits were not paid for. I don’t want to mention some insurance companies, but most of us providers don’t want to have anything to do with them.”

Similarly, participant P11, an independent practice participant, described interactions with insurance operatives as “fighting with the insurance company all the time.” Also, P15 of the psychiatric workplace highlighted this in the insurance coverage and utilization discussion. The participant lamented the feeling of helplessness with the inability to provide adequate services to the uninsured, saying that “a large number of immigrants are uninsured and require

treatment." P15 made this assertion when describing what tough choices physicians often have to make. Similarly, P09 of a private practice cited losing a patient to diabetes due to being uninsured. The participant said, "I had a patient whose leg was already black from diabetes. First, she lost her toes, then her leg, and eventually, she died."

***Theme 2B: Insurance Documentation*.** The academic literature noted that insurance billings rely on documentation (Gardner et al., 2019). P20 explained:

> On a personal level, the problem is that our time is so limited and so constrained with individual patients, and we're expecting to see a certain number of patients in order to meet, you know, basic minimum requirements for billing that we often miss that person, you know, quality time with patients.

Also, insurance documentation requires specific steps, according to participant P11, who described the insurance documentation as "non-care related issues" and that insurance documentation "requires specific steps for reimbursement." He reiterated that:

> All aspects of interaction with insurance companies are problematic. If I have a patient and I've made a diagnosis and assessment, and I've determined what they need, I shouldn't have to go and fight for it. I should be able to, you know, make an assessment and make a recommendation. You know, part of my training is not how to fight (with insurance companies). I have to document in particular ways, in specific ways, and everybody thought that the electronic medical record system was going to help resolve this issue. It doesn't.

Theme 2c: Insurance Reimbursement. Another workplace situation, although different from one described in a private practice workplace, is nonetheless a cause of stress because physicians have to ensure that they perform the tasks of capturing all services, including

screenings for billing and insurance purposes. P19 of the retail ambulatory workplace described that:

> If there is elevated (Patient's) weight, you wanna bring them back to nutrition counseling if they're hypertensive you wanna do some type of sleep apnea study and you wanna bring them back for that if it's if their blood pressure is elevated you wanna bring them back for hypertension management, you wanna bring him back for asthma management you wanna just bring them back and all that requires a lot of time to screen them right, and sometimes that's in addition to what they're coming in for and again you remember I said they may not be coming in for all those other screening but the establishment want you to screen for all of that and if you don't screen for it you're not bringing any business to them they gonna wanna review and that's a stress factor right, because you're trying your best to get those screening aspects in, and you're forgetting about what's going on with the main visit, then you got to worry about quality coming back to you dinging you if you don't put a vital sign in there or if you miss out certain clinical elements and you're missing out those clinical elements because you're focusing on other things that they want you to do that … continue to bring money into the system so it can be very, very stressful from that standpoint and give rise to a major turnover rate as well within a particular entity.

P16 of the military-affiliated hospital workplace added that most insurance-related tasks are unrelated to the patient's visits and are only for reimbursement purposes. The participant also discussed the patient's feelings about information gathering and documentation, portraying that some insurance-related tasks also negatively affect their interactions with the patients. P16 stated:

> Let's just say if they come in for a sore throat, they just want a strep test, right? They don't want to answer all questions about this and that, and so they get turned off from those questions. They shut you down, and as a result, the visit can go bad, and you complete the visit, but then you got to worry about what they're going to say about you after the visit.

P12, also of a private practice workplace, confirms the challenges using the example of the Insurance network system and how this affects reimbursement. P12 stated:

> The problem is that the insurance company is making it very difficult for you (the physician) to get paid, so you end up fighting for almost every other claim for people. So, we found out how to report to the Maryland Insurance Commission and to the Maryland Attorney General's office. So, every time you treat a patient, let's say payment is $100. They (the insurance company) may pay only $10, then you start fighting and fighting, and they will give you a little bit more. So that causes a lot of stress, and they only start responding because you reported them to the Maryland Insurance Commission in Maryland or the Attorney General's office.

Theme 3: Workplace Resources. The popular conception of burnout and related constructs across the models is that well-being is a function of the relationship between demands and resources (Brigham et al., 2018). In this context, resources are the workplace conditions that facilitate job performance. The physician's workplace resources include tangible ones, such as infrastructures, and procedural ones, like the provision of well-being programs that enable the physician to perform job functions comfortably and adequately (Joanna et al., 2018). This high expenditure does not necessarily translate to high resources because healthcare resources are not limited to digital and intelligent technologies, the primary U.S. healthcare expenditure (Del

Carmen et al., 2019). In the evolving healthcare scenario, they include new methods for managing medical records and better patient information sharing between healthcare facilities (Cerchione et al., 2022). Furthermore, the continued decline in insurance reimbursement has resulted in significant capital expenditure reduction and fewer resources allocation. Limited resources are also a prominent reason for physicians to balance the need for population-level guidelines about access against the interests of individual patients (Croughan & Gee, 2019).

Theme 3A: Limited Resources. Workplace resource allocation of healthcare organizations to mitigate and prevent burnout within the PCP workplace. Limited physician resources in health care have further complicated a physician's ability to respond optimally to patient needs. Institutional infrastructure and continuing medical education (CME) activities (i.e., short courses, workplace coaching, and psychologically-safe small community forums of physicians for leadership and direction) are not standard in many healthcare workplaces. Furthermore, the participants from the ambulatory workplaces reported they received minimal training and learned on the job. P03 of the retail ambulatory workplace commented, "I only got two days of training before I was left to start working on my own," P08 added, "I just wish that there was someone to ask questions." Both participants described the need for comradery, leadership, and directions for validation and stable motivation.

Moreover, limited healthcare resources have further complicated physicians' ability to respond optimally to their patients' needs (Gristina & Piccinni, 2021). Although the physician's ability to be effective in care delivery sometimes depends on the volume and efficiency of the available resources. Characteristics and the focus on establishing a right to health care have contributed to a failure to address complex issues in developing ethical standards for equitably prioritizing limited resources in health care. However, financial performance measures vary by

healthcare workplace characteristics and ethical and equitable care focus. Resource limitation forces physicians to decide who and what care to provide in governmental and for-profit healthcare workplaces leading to ethical challenges (Green et al., 2020).

Theme 3B Support and Mentorship: Workplace support and mentorship lowered physician burnout (Perumalswami et al., 2020). Sickness, absence, job satisfaction, and staff morale varied in workplace contexts. Baiu et al. (2020) cited that the physician's workplace stressors include a lack of colleague support, work-life imbalance, and isolation. Two of the retail ambulatory workplace participants mentioned similar instances at their workplaces. P03 emphasized, "I don't think that I got enough training," while P06 added, "I work by myself, and there is no one else to direct questions to." P19 of ambulatory care expressed the feeling of illegitimacy when the clinic was substandard or when patients requested services that the clinic did not offer.

Theme 4: Systemic Issues. Systemic issues range widely in characteristics and intensity and are organization-dependent. In addressing physician burnout, the literature indicated that systemic factors received little holistic attention (Brigham et al., 2018). Participants' interview data indicated systemic issues such as discrimination in care delivery, racial barriers, and uneven care availability. Identified systemic issues include healthcare disparities that prevented physicians from delivering care to some people because of discrimination and the hyper-litigious healthcare system.

***Theme 4A: Healthcare Disparities*.** Healthcare disparities relate to access to care when socio-economic parameters such as conditions and places people are born, live, learn, work, and play are known as social determinants of health (Ho & Dascalu, 2021). Blacks and other ethnic minorities are at the bottom of the social hierarchy and reflect in what care they receive.

Minority physicians also believe that healthcare organizations have discriminatory systems against ethnic minorities, as indicated in the stories from P11 and P16. They gave an example in a tone that hinted at frustration and helplessness in describing discriminatory practices against minority patients by non-minority physicians. The participant described a sense of helplessness because of the organizational setup that enables these practices and takes away services from minority patients:

> It's a major issue, and I think that whole equity, inclusion, and diversity are major issues. You have some people say African-Americans, for example, they may have insurance, but yet they don't get the proper care or the proper follow-up, or the proper referral, even when they have good insurance. It could be prejudice involved in that, or maybe it could be a discriminatory platform. For example, I (some unnamed physicians) don't wanna give this person (patient) a kidney if they gonna continue their bad habits, or it doesn't make sense for me (unnamed physician) to prescribe this high blood pressure medicine to this individual (patient) when you know that he's not going to take it or when he or she knows or hypertension or he has obesity, whatever the case may be, and they gonna still eat pork and carbs or whatever the case may be and so why am I gonna share with them about whatever (better lifestyle habit tips).

The participant gave another example to prove that these scenarios were not hypothetical based on their experiences:

> They just wanna take away service. I give you an example let's just say pill box for a group of African American males whom you know that gets their medication because they have a neurocognitive disorder, and you know that getting a fixing of pill box up for that person and have that person that comes in monthly for a pill box will actually

> enhance their treatment. But for some reason, you (an unnamed physician) don't wanna do it. For whatever reason, you decided that you wanted to get rid of that program when you know that that program is helping people because you know you can get away with it.

Theme 4B: Workplace Discriminations. Workplace experiences, bias, and discrimination against Blacks and other minorities are well-documented. Physicians and the healthcare workplace are no exception (Filut et al., 2020). The researcher asked the participants how they felt about these scenarios. In addition to feeling stressed due to helplessness, the participant explained their frustration and disappointment:

> There is an issue there, but you can see it playing because you may be a minority in that group in that practice, and if you say anything, you may feel like they're gonna set you up, and you end up losing your job if you speak out on it. When you see things, things are just wrong, but they do it all the time. Yep, I experienced them (care discrimination and helplessness).

P12 narrated an experience with workplace discrimination that ended their employment with a particular workplace:

> I was the only Black there, mostly. Others were Jewish and Caucasian. And I was the only one, and there were very predatory practices. You know, that was a really low point. It got to the point that I had to get a lawyer, and they relaxed, and I eventually left.

The feeling of discontentment at the workplace is also worrisome because the workplace environment influences the well-being of employees and effective teamwork. Although not unique to the healthcare workplace, interpersonal conflicts have enormous and more far-reaching consequences because it depletes energy and reduces collaboration and well-being. Throughout

the literature, researchers have highlighted poignant examples of how the policies, procedures, and practices perpetuate various inequitable workplace conditions for minority employees. P16 highlighted the psychosocial environment surrounding a minority physician and the psychological implication, which he described thus:

> If you say anything, you may feel that they're gonna set you up, and you end up losing your job if you speak out on it when you see things are just wrong, what they're doing all the time, you know. I experience it sometimes, you know, I've experienced them.

Theme 4C: Healthcare Regulatory Requirements. Healthcare regulatory requirements include activities that the employer and regulatory authorities utilize to gain insights into the healthcare system. These Big Data will be an integral part of the next generation of technological developments and healthcare improvement (Agrawal & Prabakaran, 2020). In citing how the requirement affects job performance and well-being, P20 described the fear of possible fallouts if they do not perform the required tasks efficiently and effectively.

Theme 4D: **Litigious System.** The participants explained that the hyper-litigious medical-legal system contributed to physician stress. Over the past few decades, many aspects of medical practice have changed. The level of medical litigations is on the rise, and the hyper-litigious medical system allows the system to frame the issues depending on the target and medicolegal environment fear has prompted the practice of defensive medicine with a tendency to over-investigate and overtreat (Baiu et al., 2020). Physicians must constantly be alert to the possibilities of lawsuits and take extra precautions with every physician to prevent lawsuits. This study found that the physician's significant amount of time and after-hour tasks are part of careful documentation to prevent frivolous legal suits, as reported by P08:

> Because you know, the careful documentation, the careful follow-up, and because you have to make sure that nothing comes back to haunt you for the failure to do something. Let's just say you refer a patient out for an OB-GYN-related issue, whereas there have been some abnormalities in the report. You tell this person (the patient), I need you to follow up with the ob-gyn, and that person didn't follow up on it, and then maybe six months or a year down the road, that person decides to follow up, and then that person now has cancer stage four that is irreversible or non-treatable. Then that person or the parent tells you why didn't you follow up, and you did, and for whatever reason, because you're so overwhelmed with all the other things that you forgot to document that, and if you didn't document it, it's almost like if you didn't do it, but they see a pathway to sue you to get money. So that medical-legal system, and that's what overwhelms you, yeah, because you didn't document certain things that you probably wouldn't even have to document if this wasn't such a sue-happy society and society that wants to sue you for everything.

Theme 5: COVID-19 Pandemic. The literature noted that the COVID-19 pandemic placed an enormous strain on healthcare systems worldwide, exposing long-standing public health weaknesses and exacerbating chronic inequities in the U.S. healthcare system (Lal et al., 2021). Since 2019, the Coronavirus disease (COVID-19) pandemic and its related containment efforts have generated a worldwide health crisis and have impacted everyone and all sectors, but none as much as the healthcare providers. Although this research study commenced before the COVID-19 pandemic, the focus was not on the pandemic. Therefore, the information received as part of this study addressed the first part of RQ3-asking physicians for descriptions of their experience with burnout. There was a consensus among participants about the enormity of the

effects of the pandemic on physicians; however, physician burnout preceded the pandemic (Jerome, 2020).

The pandemic revealed the critical state of systemic healthcare issues, such as emergency preparedness and workplace stress factors, that are uncommon discussion topics. All participants implied the difficulty experienced, while eight directly reiterated the difficulties and discussed how much emotional and physical stress the pandemic imposed at the earlier stage. Furthermore, the participants felt it was important to stress that the pandemic affected physicians in multiple ways. For instance, they expressed that the loss of income, shortage of resources, and a sense of powerlessness are all contributing factors. Nevertheless, participants felt that the COVID-19 pandemic amplified the situation. P10 of the tertiary-affiliated workplace explained further:

> Oh boy, that is a huge, huge one. So, you know, the mental stress and the task of being in the midst of a pandemic where you are literally putting yourself on the front lines, and initially, you know, at the very beginning of the pandemic, no one knew what was happening, and no one had the answers for what this is. What are the long-term effects of this illness? Like nobody knew, and we didn't have the vaccine. So, you literally show up and put yourself on the front lines. That is, you know, that's battlefield kind which has a huge effect on our mental health and well-being, and then, you know, the task of having to care for such complicated illness, so very, very sick people. You can't always explain their symptoms because, again, we're still trying to understand the illness. We were seeing so many sick people and people dying, you know, and that is hard on a personal level. But as a physician, you know we're here to make people better.

Expression from P10 was the most common among the large workplaces, and smaller organizations like the ambulatory clinics had the flexibility of operating under fewer government

pandemic rules. However, they suffered the strain of the pandemic by following the guidelines and provisions that applied to participants in all healthcare centers. In addition, private practice participants commented on “loss of income at the initial stage due to the total lockdown.” Referencing the challenges, Participant P01 stated, “We couldn’t recognize people under the masks until we look in their records.” Although healthcare workers did not face unemployment risk at the same magnitude as the rest of the country, some solo practices and retail ambulatory workplaces not directly at the forefront of the pandemic had to close like the rest of other business establishments. They suddenly saw their revenue stream quickly dry up. Even large hospitals reported losing income from the pause on elective surgeries and procedures. They experienced occupational and financial uncertainty, a feeling associated with mental health deterioration (Moukaddam et al., 2020). In addition to the distress endured by the general population, the chaos ensued revealed a deficiency in healthcare organizations' strategic and immediate response capabilities. The pandemic also caused an unprecedented psychological burden on physicians, with relentless waves of patients presenting for care (Moukaddam et al., 2020).

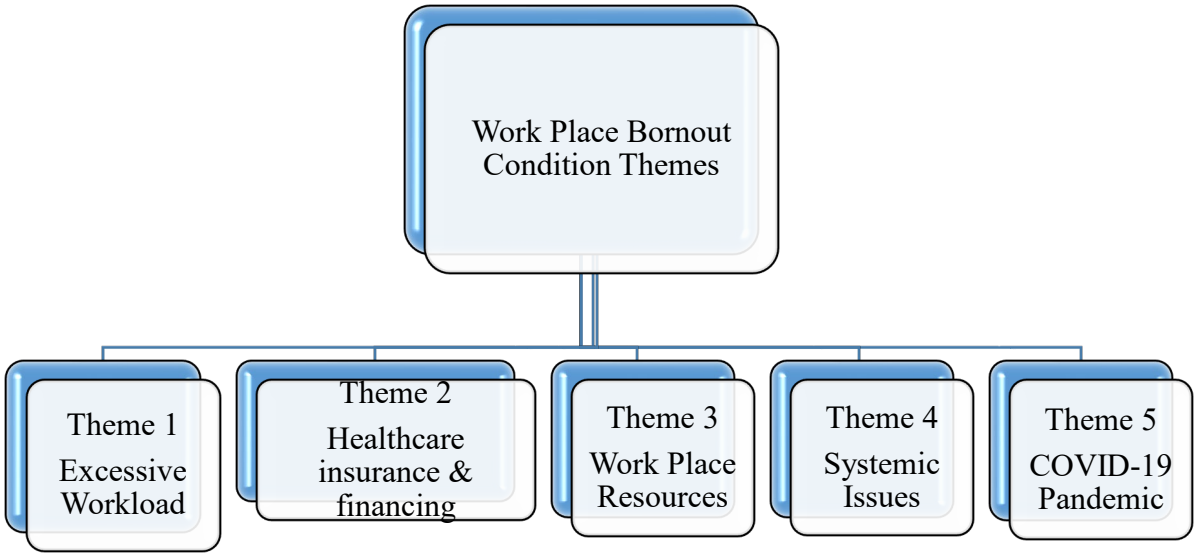
Representation and Visualization of the Data

This section will discuss the representation and visualization of the data for this study. Figure 5 shows the discovered themes: Excessive workload, healthcare insurance, financing, workplace resources, systemic issues, and the COVID-19 pandemic. As gathered from interview data, theme 1 summarizes the excess workload, such as the EHR tasks and grueling work hours. Theme 2 encompasses insurance tasks, including preauthorization, reimbursements, and access issues for the insured and uninsured. Theme 3 categorizes resources, including tangibles such as capital resources and non-tangible institutional infrastructures such as well-being programs,

continuing medical education (CME) activities, and workplace coaching. Theme 4 includes systemic issues highlighted by participants, such as the healthcare disparities and fear of the medicolegal system that leaves physicians vulnerable to the patient's judgment and lawsuits. Theme 5 is the fallouts of the COVID-19 pandemic.

Figure 5.

Workplace Findings



The scholars in the academic literature perceived burnout as an obvious outcome of systems developed within medical education and fostered throughout the career of physicians (Patel et al., 2018; Szarko et al., 2022). As shown in figure 6, issues such as healthcare disparities, a hyper-litigious system, and faulty medical education are deeply rooted in the U.S. healthcare system and beyond the control of individuals.

Figure 6.
Systemic Factors

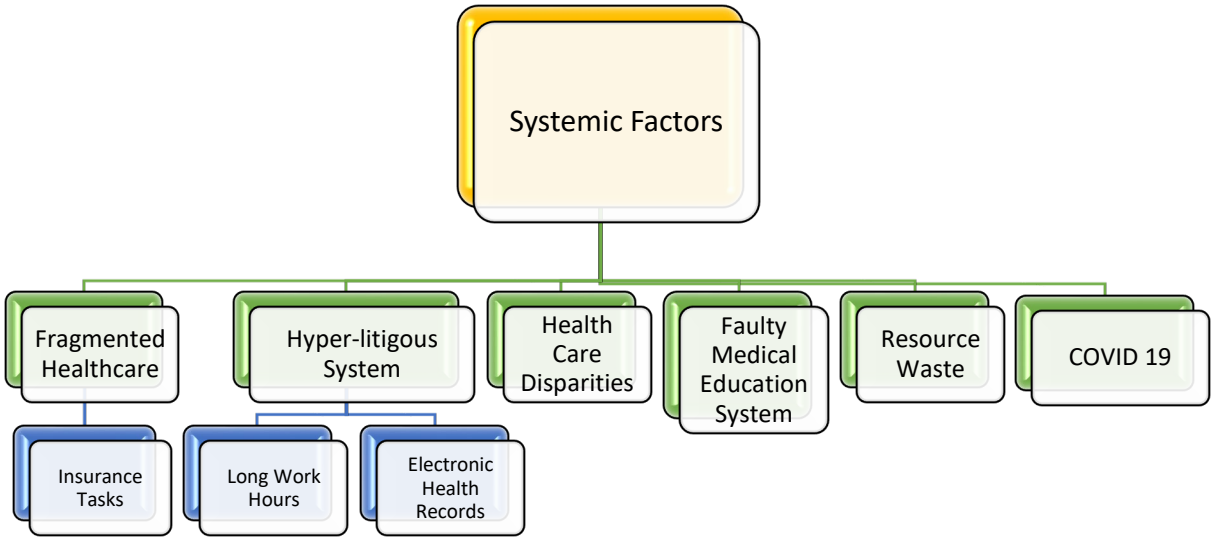
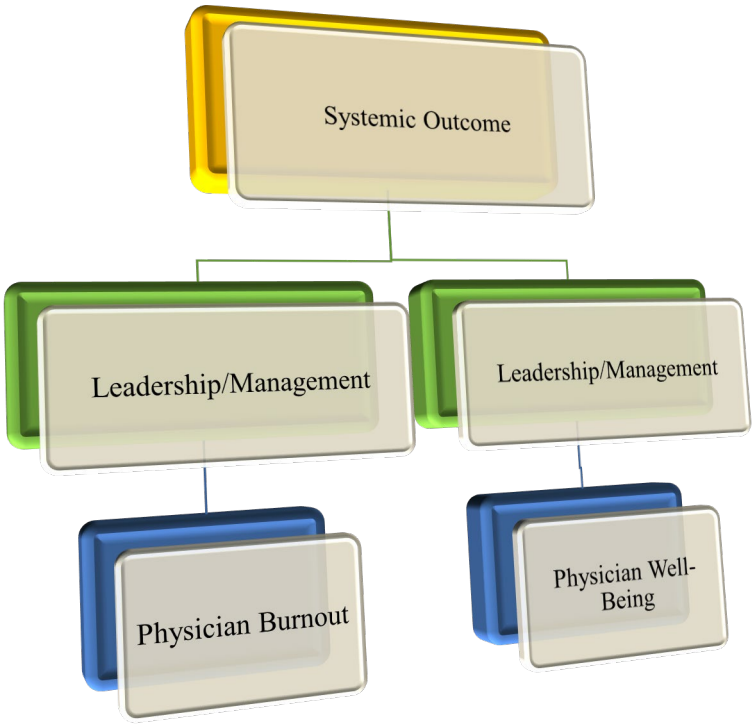


Figure 7 below shows the possible contrasting influence of workplace leadership on the systemic healthcare climate. Studies incorporating physician burnout assessment into quality improvement and economic analysis frameworks show that structural and organizational approaches are required to develop and implement burnout interventions (West & Dyrbye, 2018). The importance of the life-work balance to an organization reflects a management's HRD strategic policy of dynamism. Management through strategies such as efficient work processes and policies could tilt physician well-being in the right direction by implementing.

Figure 7.

Possible Outcomes of Systemic Effects



Relationship of the Findings

The research problem and questions resulted from comprehensive academic literature reviews, which revealed limited qualitative research studies focused on workplace conditions that lead to physician burnout in diverse healthcare settings and workplaces. The researcher collected data through interviews with 21 physicians using semi-structured interviews. The researcher extracted initial codes from the interviews, then merged similar codes to form themes. The researcher developed an interview guide and used the SurveyMonkey application, a survey tool, to determine a participant's eligibility for the study. The researcher communicated with each

participant for member-checking on the data collected. The researcher presented the findings in the present analysis, as summarized in five themes and relationships to the research problem, research questions, conceptual framework, and literature review. The researcher confirmed through this discussion that the research project provided results that advanced the academic and industry.

Relationship to the Research Questions. The research questions were designed to address evidence of the association of burnout to objective and subjective reported well-being indicators because the physician burnout problem is complex. Starting with the term "burnout," the numerous measuring yardsticks, and the wildly varied research outcomes of causes and solutions. Many authors agreed that physician burnout was a severe problem. This confusion has prompted authors to inquire: "Is provider burn-out inflicted by another entity, and if so, by whom or by what? Is it, by contrast, a disease or a condition? Is burnout something that just happens, or is it created?" (Valeras, 2020) and "Physician Burnout—A Serious Symptom, But of What? (Schwenk & Gold, 2018) These examples of ongoing burnout inquiries showed the confusion and addressed why this researcher tailored the questions for individual descriptions.

Research Question 1. The first question asked: How have workplace conditions affected the likelihood of physician burnout? Physician burnout is a huge problem in the medical community (Patel et al., 2018). Subsequently, it became a catchphrase for all wrongs in healthcare delivery, such as job dissatisfaction, fatigue, occupational stress, and depression. Also, burnout has been through many academic lenses, including causes, prevalence, preventive measures, and strategic antidotes. The study found that significant workplace conditions are likely to determine burnout. Irrespective of the workplace, participants' descriptions align with the literature in the description that workplace conditions are more likely than personal

characteristics to cause burnout. The most significant logic proffered was that unfavorable workplace conditions often exacerbate personal conditions that could pre-dispose to burnout. Three participants specifically spoke on this fact. P03 emphasized that "I don't think that I got enough training," and P06, "I work by myself, and there is no one else to direct questions to."

Furthermore, P19 expressed the feeling of illegitimacy when the clinic was substandard or when patients requested services that the clinic did not offer. Dialogs revealed that these areas are essential management strategies that could boost resilience and improve practice efficiency. The argument is that individual physicians may not improve some conditions, and some issues are out of the control of individuals. The description of burnout as an inappropriate response to stress requires prevention and treatment to reduce stressful stimuli and increase the capacity to handle stress (Squiers et al., 2017). It is then necessary to inquire into the belief that physician burnout is attributable to the physician. Participants can describe their feelings without leading or presumptions from the researcher. Burnout remedy has also focused on bolstering individual resilience even when study recognizes the significant influence of the workplace (Jerome, 2020). In framing this question and the interview questions, the researcher can understand and experience the phenomenon through a participant's experiences, and the description provides the missing nuances of different workplaces. Equating burnout with general distress or making it a problem experienced by a few people at a time distracts from the experience of suffering due to work-related caregiving demands that, ultimately, can affect anyone and, eventually, patient care.

The finding also aligned with human resource development literature, which gained momentum to enhance organizational success by maximizing a company's human resources. The argument is that strenuous work conditions are often responsible for work-life disequilibrium, which may shift an individual's earlier conceived values, wants, and needs. Modern human

resource management includes strategic decisions centered around employee development, including resilience boosting. In a dialogue with management personnel, the participant opined that her organization would benefit from more dynamic human resource management. The participant shared that, for example, the organization would retain more physicians if they implemented tailored work schedules to keep young parents who struggle to find extended child care. The modern approach to human capital management continues to evolve, and management increasingly realizes that a company's workforce is the most critical asset. The importance of the life-work balance to an organization reflects a management's HRD strategic policy of dynamism and investment in staff well-being and job satisfaction.

Research Question 2. Research Question 2 asked what workplace conditions or experiences were responsible for contributing to physician burnout. Further to question one, which inquired about the relationships between the workplace and burnout, it is necessary to describe the phenomenon without potential leading themes. It was crucial to understanding any specific factor or objective indicators of the workplace in a participant's description, which was a factor in choosing a multiple-case study qualitative inquiry that allowed the participants to describe any case specificity in their own words. It is also necessary to avoid fitting people's unique experiences into existing narration or scholarly themes. The literature identified different factors and conditions as responsible for burnout.

However, different measuring yardsticks were applied to arrive at these. Also, problem framing is situational and, in this case, should be both contextual and situational to explore the wide variability already documented by literature. The most cited conception of physician burnout is that it is of three distinct symptoms: (a) physical and emotional exhaustion, (b) depersonalization or cynicism, and (c) a reduced sense of personal accomplishment, which is the

tendency to see the job as meaningless (West et al., 2018). Emotional exhaustion is the most common burnout symptom when a sufferer experiences emotional drainage, depletion, and inability to recover during non-working hours (Gupta & Srivastava, 2021).

The researcher found that excessive workload was the primary burnout driver because conditions such as insurance and reimbursement tasks, excessive documentation, and limited resources are not independent of workload. Additionally, physician supply has an inverse and cyclical relationship with workload. The researcher found no study that compared the experiences across diverse healthcare workplaces. Participants' descriptions of their unique experiences enabled the researcher to determine the possible factors, themes, or divergences.

Research Question 3. Research Question 3 asked how physicians describe their experience with burnout and how does burnout contribute to physician attrition or shortage in this care facility? There are many dimensions of physician burnout, and the literature pointed out a prevalence level from zero to 80.5 percent (Schwenk & Gold, 2018). The variety and heterogeneity in different study designs, methods, and measurement instruments across various workplaces made reports and outcomes challenging to generalize. The researcher found that the questions aligned with the study because this framing enabled participants to describe their personal burnout experiences. The literature documented that physicians are often stoic, adopt “performance protection” by hiding their illnesses, and continue to function without seeking help (Montgomery et al., 2019). They are sometimes reluctant to categorize their stress or burnout symptoms. A lot assumed that it was a normal feeling because "medicine is hard,” and some of the symptoms, for some physicians, started in medical school (P10). Describing their well-being strategies may inadvertently reveal deep-seated conditions that may otherwise be unidentified even by someone suffering from this condition.

Furthermore, using the well-being framework, the study included participants' descriptions of burnout and well-being strategies. While the condition may be challenging to diagnose, the state of well-being may be easier to describe. By providing descriptions, the researcher can make further inquiries. Participants revealed various nuances by describing personal expenses and focusing on well-being, such as strategies to promote well-being and engagement. Participants also discussed how their experiences changed with different jobs. For example, P08 changed jobs within seven months and spoke about her experiences comparing the two jobs and how conditions differ. Very different conditions exist in these two organizations that are potential triggers for them.

The literature revealed that burnout symptoms are associated with several types of professional dysfunction and increased risk of psychiatric illnesses, making it difficult to distinguish between burnout sufferers and those suffering from other mental disorders, such as depression, and thus challenging to diagnose (McFarland et al., 2019a). The researcher encouraged each participant to describe their experiences with recovery and explain past successful strategies. P08 revealed how her trigger factor differed from one job to another. Part of the experience the participant shared included the resources at her disposal to deal with burnout from her job and her well-being promotion strategies. Physician burnout symptoms also may vary daily and weekly, depending on many factors such as job tasks, who the lead physician is for the week, or an unfortunate clinical outcome such as a patient's death.

The second part of the question inquired about how burnout contributes to physician attrition and shortages. The physician shortage was one of the outcomes of burnout through attrition. Similarly, burnout and attrition differed among the workplaces; however, burnout was not the only risk factor. Physician burnout symptoms also may vary daily and weekly, depending

on many factors such as job tasks, who the lead physician is for the week, or an unfortunate clinical outcome such as a patient's death.

Relationship to the Conceptual Framework. The study adopted the well-being framework, a dimension of engagement on the same continuum as burnout, and is the antithesis of burnout. Well-being is not the absence of burnout but an optimal state (Rotenstein et al., 2021). The elements of the well-being framework are discussed and include personal resilience, the efficiency of practice, the organizational factors, and their relationship to the findings.

Personal Resilience. The literature cited an association between physician burnout and organization-level drivers that contribute to an imbalance between resources and workload for physicians on the one hand and individual-level drivers related to resilience practices and work attitudes on the other (Shanafelt & Noseworthy, 2017; Shelley, 2019; West et al., 2018). Findings suggested that workplace conditions, such as the setting and management strategy, are independent and are crucial factors that affect resilience, which could tip the balance in the right direction of well-being or the wrong direction of burnout. P10, who described this context succinctly and stated:

> Individuals with very high acuity because a lot of stuff is going on, a lot of referrers going on. Sometimes you can have orthopedic activated, and you can have urology activated, nephrology activated, psychologist, psychiatry activated, and neurology activated all on one person. I got (am) one person. All of these consults are coming back to you, and you got to follow all of those different elements or those diagnoses, and imagine you having 10, 15 people on your roster that week with all of that follow-up and being short-staffed at the same time. That can create a really big problem with burnout, even if you have a passion.

Furthermore, the findings suggest that workplace conditions could independently determine well-being. The triple-layer involvement of systemic, organizational, and individual roles in interventions is considered most effective in achieving solutions rather than building physician resilience (Lin et al., 2019b; Stewart et al., 2019). It is important to note that building resilience alone is not an anomaly. The problem arises when workplace leaders consider resilience-building a physician's responsibility or a reason to maintain the status quo (Winston & Fage, 2019).

***Physician Well-being*.** Well-being is a complicated relationship encompassing interrelated qualities, including resilience, fulfillment, joy in work, and burnout (Larsen et al., 2021). Among these, the topic of burnout has been studied most widely by scholars and is more prevalent among medical trainees and professionals than in the general population (Grow et al., 2019). Burnout is associated with physician depression and suicidality. The adverse effects of burnout include decreased patient satisfaction and increased medical errors, and costs. Although anxiety, stress, depression, and burnout are generally part of today's world, the absence of these attributes does not indicate well-being because interrelated well-being attributes may include resilience, fulfillment, and joy in work.

The study findings suggest that physician well-being is one of the most comprehensive multifactorial models and includes organizational and individual influence (Stewart et al., 2019). Additionally, addressing burnout and its connection to well-being, and the accompanying dynamics, included resilience, practice efficiency, and organizational factors. Nevertheless, the need for employers to act on workplace health and well-being is unequivocal, and the practice of bringing together resources within a coherent approach is critical. Physicians reporting high

levels of exhaustion are more likely to reduce their work engagement and the number of patients in their practice or retire (Del Carmen et al., 2019).

Practice Efficiency. The efficiency of practice refers to the physician's accomplishments resulting from the value-added clinical work, divided by time and energy input. The provision of compassionate, evidence-based care ultimately depends on the physician's efficient practice environment, which often includes workplace systems, processes, and practices that help physicians and their teams to fulfill tasks (Bohman et al., 2017). Moreover, care delivery success relies on team configurations in primary care workplaces (Dai et al., 2020). Findings suggest that physician well-being is impossible when primary healthcare workplaces' practice environment continues to deteriorate. This research found that workplace conditions could significantly affect well-being strategies, such as teaching resilience skills or providing burnout management tools.

Issues surrounding teamwork, leadership, and autonomy are favorable conditions that could reinforce skills and improve well-being. Intervention within the workplace increases positive outcomes because it indicates that such activities are standard parts of the job rather than an afterthought. Other configuration issues, such as demography and multidisciplinary structure, could improve the delivery of team-based results and affect the physician's well-being. The administrative operating expense associated with the EHR creates inefficiencies in the standard workflow of patient interactions. Furthermore, the academic literature noted that the inefficiencies exacerbate physician burnout symptoms through excessive EHR-related hours (Kruse et al., 2022). This study found that favorable workplace efficiencies significantly contribute to the well-being and are independent of other factors, and management policies could tilt physician well-being in the right direction by implementing efficient work processes.

***Organization Factors*.** Physician burnout is a global problem, and addressing the root cause is critical (Patel et al., 2018). In addition to practice efficiencies, the findings suggested that organizational factors such as management strategies to coordinate and manage systemic influences as resource administrators of the workplace are crucial. Well-being contributors and physician resilience are a complex interplay of organizational factors, making the workplace condition a resource potentially resulting in well-being or burnout. Also, most burnout interventions, for instance, are pre-post studies, many of which lack viable evidence of efficacy in improving well-being. The roles of systemic factors involve national healthcare initiatives and national primary care quality improvement strategies. Initiatives such as medical home transformation requirements, EHR, innovations such as code of regulations, physician and organizational accreditation requirements, care integration requirements, EHR, certification agency facility, regulations such as the Joint Commission on Accreditation of Health Organizations (JCAHO), education loans and grants require the control and directions of efficient management to be successful (Patel et al., 2018).

Anticipated Themes. This qualitative multiple case study research documented anticipated themes from interviews and background information from the literature. The researcher extracted these themes from the analysis of the data gathered. The researcher refrained from fitting participants' reports into existing narrations and themes, especially as this is multiple-case research, and conditions vary among individuals and workplaces. The literature review provided the phenomenon's background, revealing these categories (Lal et al., 2021; West et al., 2018; Yates, 2020). The themes identified include excessive documentation, insurance, workplace resources, systemic issues, and the COVID-19 pandemic. The researcher anticipated these because of the extensive burnout literature, which enabled the researcher to craft a study

design capable of capturing the essence of the study. Literature indicates that burnout occurs in many industries and professions, especially in helping or frontline professions (Patel et al., 2022). The phenomenon's complexity encouraged the researcher to be further cognizant of data similarities and differences in the context of the varied workplaces.

Unanticipated Themes. Burnout literature specified systemic issues, including multiple complex medical and social problems. Although the research identified some of these, some of the theme's emergent codes, such as inequalities in care delivery, were unanticipated. P10, P16, and P17 recounted their experiences with the feeling of helplessness and sadness in some systemic disequilibrium in health provision. Some participants detailed racial profiling in treatments, such as the example narrated earlier by P17, who described some cases of inappropriate treatment of minority patients because of the physician's preconceived notion of the patient's lifestyle and disease disposition. P10 also cited feeling powerless to help patients already disadvantaged in healthcare with the statement, " we don't have control over that" (P10). P13 also shared an opinion:

> So, you know, a person comes in with diabetes, but behind that, they're homeless, they have no income, and it's very stressful to be able to tackle one issue and not be able to address all of the other and that that certainly contributes to you know feelings of angst and, you know, dissatisfaction in the way that we provide care to our patients.

Missing Themes. Literature cited that high levels of medical student debt are negatively associated with a physician's well-being and more burnout symptoms, tend to drive physicians toward high-paying specialties, and positively correlate to physician attrition (Larson et al., 2020). The high cost of education or education reimbursement did not arise in the interviews as a workplace contributing factor. This fact further confirms the complexity of the burnout

phenomenon. The researcher realized that participants possibly did not consider this a contributing condition, possibly not because no one carries college loans, but maybe because they did not consider employee loan repayment a possible organizational strategy. The researcher considers this economic workplace strategy as a missing theme. The effects of debt on academic performance and choice of practice workplace are significant, with higher education debt averaging $200,000 per person in the U.S. (Kocalevent et al., 2020). Accreditation Council for Graduate Medical Education (ACGME) also cited that medical graduates are more likely to report financial stress and educational debt, including delays in getting married, having children, and buying a home, as an adverse effect on their work, lifestyle choices and a source of burnout (Garrett et al., 2022).

Relationship to the Literature. Findings from this qualitative multiple case study aligned with the literature and reported that physician burnout is common amongst physicians. However, the prevalence may differ throughout a clinician's career and workplace. Burnout rates are higher for physicians engaged in the front lines of care, including family medicine and primary care (Del Carmen et al., 2019). The five themes identified are (a) excessive workload, (b) insurance tasks, (c) workplace resources, (d) systemic issues, and (e) the COVID-19 pandemic that contributes to workplace conditions and physician burnout.

Theme 1 summarizes the excessive workload findings, such as EHR tasks and extended work hours, which the research found consistent in all workplaces. Theme 2 summarizes health insurance and confirms the literature's account as a workplace condition. It references participants' frustrations about insurance tasks imposed on their job (Green et al., 2020; James et al., 2020). Participants in all workplaces felt they had no control and reported increasing burden from the shared tasks associated with healthcare payments and reimbursements. Independent

practice physicians cited decreased financial margins due to abysmal insurance reimbursements, retail participants cited pre-authorization problems, and large hospitals cited decreased prescription and treatment authorities. The study also observed that literature and findings align concerning workplace resources (Perumalswami et al., 2020), systemic issues such as healthcare disparities (Rotenstein et al., 2021), and the impact of the COVID-19 pandemic (Pokhrel & Chhetri, 2021). P08, P17, and P21 gave accounts of overwhelming helplessness during this period. P08 recounted the lingering sense of death because they were utilizing gas masks at the early stage of the pandemic out of the fear of the unknown. participants also expressed the fear of infecting family and loved ones, the reason many gave and for which they kept a physical distance from families for months.

Relationship to the Problem. The general problem addressed was the prevalence of physician burnout resulting in potential physician shortages. Specifically, the researcher explored how potential workplace conditions affect physician burnout in Maryland State (Colgan, 2021; Firew et al., 2020; Kung et al., 2019). After gathering the data and analyzing the information, the researcher answered the research questions and found five themes that supported the likelihood that workplace conditions contributed to physician burnout.

Creswell & Poth (2018) specified that qualitative researchers often collect data in the participant's field and the site of the study problem. The researcher enlisted physicians in Maryland State and its environment for interviews and discussions on the problem of physician burnout. Also, the findings satisfy the study rationale as the researcher asserts that the five themes directly relate to the general and specific research problems and directly address the problem. Themes one, two, three, and five, which are excessive workload, health insurance, workplace resources, and the COVID-19 pandemic findings, summarized the most cited causes

of burnout related to the physician shortage. Regulatory requirements and electronic health records (EHR) contribute to clerical burden and workload. Insurance issues such as dwindling re-reimbursement, pre-authorization, and limited workplace resources before and during the COVID-19 pandemic overwhelm physicians.

Furthermore, the general problem intertwines with physician supply shortage and has a direct inverse and cyclical relationship with four of the themes. Physicians complained of stress and burnout resulting from physician shortages, leaving them continuously overworked or partially disengaged in managing the stress. As stated earlier, some participants cited physician shortages as the most significant cause of burnout. In explaining the burden of physician shortages on well-being, the participant was highly emotional and described the frustration in the chaotic environment resulting in a low ratio of physicians to patients. Theme 1 summarizes the excessive workload findings such as EHR tasks, extended work hours, and after-hour job tasks. The effect is that exhaustion and time away from rejuvenation and leisure.

Summary of the Findings

This multiple-case qualitative research study examined workplace conditions contributing to physician burnout in Maryland. The data generated from the interview transcripts and the literature supports the findings and themes. The researcher implemented a systematic data collection and analysis, answered the research questions, and concluded. Physician burnout is a multi-factorial problem influenced by personal, contextual, and organizational factors. By interviewing physicians from multiple healthcare settings and workplaces, the researcher was able to highlight the nuances in the “what” and “how” as they differ, using multiple cases and also increasing validity (Abraham et al., 2020; Lou et al., 2022). The study identified five

themes: excessive workload, health insurance, limited resources, systemic issues, and the COVID-19 pandemic.

The findings are essential to understanding the range of impact caused by burnout. Feelings of well-being, such as positive emotion, meaning, purpose, engagement, and connectedness, contribute to job satisfaction and are associated with staff retention and work performance. In addition, feelings of well-being may increase resilience and the ability to cope with stress, thereby helping to mitigate burnout (Ashton-James & McNeilage, 2022). Moreover, the study highlighted how these identified themes would likely lead to physician shortage through attrition. Themes such as systemic issues encompassing healthcare disparities, a hyper-litigious system, and faulty medical education are deeply rooted in the U.S. healthcare system and beyond workplace management's immediate control. Also, excessive load, insurance tasks, and documentation are all fallouts of the fragmented healthcare system that require systemic intervention. Therefore, workplace health and well-being are unequivocal and critical for physicians and the healthcare system.

Application to Professional Practice

This section analyzes improving the general businesses and the potential strategies to prevent, halt and manage physician burnout in Maryland State. The section evaluates potential strategies provided by literature, including any implications and suggestions obtained during the interview dialogs. General business practice suggestions must take cognizance of the difficulties inherent in a complex phenomenon such as physician burnout. The challenge inherent in a non-national healthcare system is significant. Realistic business practice improvement ideas include this limitation and involve practical alternatives.

Improving General Business Practice

The findings suggested that workplace conditions contributing to physician burnout required management and workplace leadership interventions for any meaningful solution. The partway to applying these findings to improving general business practice must be along the line of improving the healthcare system. Prior research primarily focused on examining individual and localized drivers using a limited context framing, which minimized and often failed to capture the influences of the national political and economic structures (Bambra et al., 2019). Moreover, failing to analyze the political context, cultures, and ideologies could lead to shallow research outcomes (Østebø et al., 2018).

Understanding the unique American social and political order that resulted in the fragmented healthcare system is critical. In addition to specific systemic issues, most workplace conditions, including excessive workload, insurance tasks, and documentation, are all direct fallouts of the fragmented healthcare system and are beyond the physician's control. For instance, patient expectations drove excessive workloads because physicians are constantly afraid of legal ramifications and threats of lawsuits. The fear leads to over-exertion through overprescribing, over-treatment, and prescribing unnecessary tests (Honavar, 2018). From this study, physician managers and workplace leaders could benefit from interventions to reduce burnout from organizational strategies.

In the interviews, the most common response concerning burnout solutions was healthcare reform, followed by management's proactiveness in dealing with and resolving workplace challenges. The responses revealed the need for transformational leadership on the national level to introduce and advocate for change as the primary way to address the widespread and systemic problem. At the micro level, management must design organization-specific

strategies to ensure adequate preventive and supportive resources for their physicians. Workplace initiatives are essential because physician burnout results from the relationship between the individual and their workplace (West et al., 2018). One way of doing this is that leaders can implement well-being initiatives and policies that focus on and reinforce workplace and organizational culture and practices to reduce negative employee impacts.

Literature also showed that the factors associated with physician burnout and its consequences affect a physician's overall health, patient outcomes, and healthcare system (Patel et al., 2018). This finding aligned with human resource development literature, with the premise that organizational success improves by maximizing human resources potential (Chakraborty & Biswas, 2020). Human resource knowledge has shifted from managing human resources to human resources development. The argument is that strenuous work conditions are often responsible for work-life disequilibrium, which may shift the individual's earlier conceived values, wants, and needs (Greige Frangieh & Khayr Yaacoub, 2019). Also, a significant characteristic of the U.S. health system is excessive corporate and governmental oversight, cultural and political upheaval, and is highly systemic (Lipuma & Robichaud, 2020).

Issues such as resilience and advocacy are strategic management and leadership responsibilities that can reduce burnout severity and prevalence over time. Many authors agree that advocacy for change is the primary way to address this widespread and systemic problem (Aggarwal & Kim, 2019; Jeelani et al., 2019; Slavin, 2019). These are also fundamental leadership responsibilities because, although involving every physician in advocacy efforts would be ideal, the reality is that not every physician would be able and willing to do so because of the required vast amount of time and effort to effect change with tangible results. Rather than waiting for the system to fix itself, workplace leaders and organization management must

implement strategies to focus on specific workplace conditions, such as workplace efficiency, to identify and prevent any additional stress sources and improve the resilience of individual physicians to withstand the challenges.

Some authors consider resiliency programs passive because they assume that resilience serves the workplace more by maintaining the status quo and, as such, workplaces remain inactive about intervention (Winston & Fage, 2019). However, resilience building presently remains the only viable hope. Resilience is a viable management tool to prevent and manage burnout, as properly implemented resilience programs can help avert risks and boost well-being (Mahmoud & Rothenberger, 2019). This strategy does not position resilience as a treatment but instead as managing a disease without immediate treatment. While research for a solution progresses, there is a need to manage the imminent consequences of a broken system (Gore & Parker, 2019).

Potential Application Strategies

This qualitative, multiple-case study revealed potential strategies that may benefit healthcare organizations. First, the literature revealed the need for consensus in measurement standardization of the assessment tools because of the large variability in reported prevalence rates and terminology controversy. Measuring and assessing burnout within each workplace could stimulate intervention to halt further deterioration (Montgomery et al., 2019; Rotenstein et al., 2018). Failing to measure could be as challenging as failing to identify causes, which results in higher staff turnover. Lost revenue, decreased productivity, and threats to the organization's long-term viability could impact the effects of burnout on the quality of care, patient satisfaction, and safety (Montgomery et al., 2019).

Although findings suggested that burnout causes are rooted in the system, the importance of an organization-driven and micro-level well-being strategy to manage causes and implement a system-based approach cannot be over-emphasized. Interventions involving prevention and symptom improvement that apply social cohesion and an instructive curriculum in a way that does not have deleterious effects on the physician's dignity are critical. Regardless of the setting or size, workplaces will benefit from organizational efforts such as locally developed practice modifications and increased support for clinical and non-clinical functions to reduce volume and complexities, including charting (West et al., 2018). Some of the suggested individual-focused coping strategies are unhealthy and can result in long-term negative consequences, even when helpful in the short term. Furthermore, some writers believe that individual-focused strategies force those already suffering from stress to develop unhealthy coping strategies such as social isolation, suppression, depersonalization, and substance abuse. Several forward-thinking organizations now consider burnout treatment a shared responsibility of the policymakers, workplace leaders, and physicians (Thomas et al., 2018).

Crafting simple strategic solutions appear to be the best course of action. These must include environmental interventions focusing on improving practice efficiency and workplace atmosphere, including practical communication training among physicians to personalize work schedules as much as possible (Eschelbach, 2018). Team-based interventions must target debriefing using structured communication tools while keeping team spirit and bonding. Additionally, practitioner-based interventions centering on relaxation techniques, resting, and overall work-life balance (Patel et al., 2019) to discourage the practice of performance protection and stoicism (Montgomery et al., 2019) are crucial.

Implementing continuous non-technical training is as important as much as competency-based technical skills and can be beneficial. Workplace leaders must explore human resource development tools such as leadership coaching. This creative process enables physicians to maximize their professional potential and utilize their mental capabilities and expertise to tackle life challenges. Coaching seeks to increase an internal sense of control and strengthen belief in oneself more than in external forces or individuals (Patel et al., 2018). Most physicians seek joy and fulfillment in their profession, tend to deny symptoms for fear of being considered weak or stigmatized, and will continue working. The long-term strategy should involve plans to prevent added stress and support coping in ways that accept and communicate to physicians that burnout causes are extrinsic, and the management must accept responsibility for the contributing causes (Patel et al., 2019). Doing this communicates to an affected physician about the system's brokenness rather than the physician and can boost morale.

Organizational support structures and leadership culture are of utmost importance in each workplace or micro unit to soften the impacts of the systemic hyper-partisan and hyper-litigious culture. The culture has trivialized and impersonalized the physician's expertise coupled with unrealistic patient expectations, which drives physicians to be constantly alert and at the patient's beck and call coupled with unrealistic patient expectations, which drives physicians to be on constant alertness and at the patient's beck and call. Although it is a good professional practice to be sensitive to patient's needs, including hand-holding, which is the hallmark of primary care, it is a big problem that in these situations, it appears like the physician is being used to prop up, replace or patch a healthcare system that is leaning rather than straightening the entire system (Honavar, 2018).

The feelings of well-being, such as positive emotion, meaning, and engagement, contribute to job satisfaction and are associated with staff retention and work performance. In addition, feelings of well-being may increase resilience and the ability to cope with stress, thereby helping to mitigate burnout (Ashton-James & McNeilage, 2022). Work process improvement and aligning the individual with organizational goals, including work-life integration, is a proven strategy (Patel et al., 2019). Furthermore, interventions to minimize symptoms require effective and strategic management by practical organizational efforts, such as locally developed practice modifications and increased support for clinical work have demonstrated benefits in reducing burnout (West et al., 2018).

Summary of Application to Professional Practice

Physician burnout prevalence and severity vary by workplace, and the physician burnout solution might be as simple as creating a two-fold process of prevention and treatment (Eschelbach, 2018). The findings suggested that national healthcare leaders are responsible because workplace conditions are deeply rooted in the system. In the meantime, each management must implement strategic initiatives to improve each workplace and the physician's well-being to boost resilience rather than waiting for the system to heal. Management can achieve these through specific initiatives such as coaching, which can help physicians assess personal vulnerability without impinging on their dignity. To achieve all these, workplace leaders must focus on the physician's recognition of personal vulnerability and implementing institutional resources for burnout measurements, which could act as a signal to stimulate intervention.

Recommendations for Further Study

For this study, the researcher identified two ways to advance the topic. First is increasing research into the effects of coaching implementation in healthcare to increase resilience. An individual's preventative and remedy initiatives will result in minimal results because some of the solutions are beyond the control of individuals. However, too much is at stake. Workplace leadership cannot wait for government and politicians or for a perfect understanding of the phenomenon to act. To change the trajectory, institutions should take the lead and address clinician burnout now. Workplace leaders can affect some strategies that may minimize the effects of these burnout drivers. Implementing continuous improvement using non-technical education as much as competency-based technical training is a human resource tool that has proven effective in other professions, such as business and sports (Armson et al., 2019).

Additional research into such coping strategies is essential because many healthcare professionals are now seeking effective intervention strategies for the problems. Resilience-building by individual physicians is a short-term coping strategy that fails in the long term and contributes to stress if extenuating conditions remain (Costa & Moss, 2018). The participants explained that organizations should utilize tools that promote mutual trust between the different hierarchy levels, helps cultivate resilience, and mitigates stress and burnout. The researcher’s findings suggested that resilience focused on recognizing a physician’s vulnerability and implementing the appropriate institutional resources to avoid exposure. Nevertheless, focusing on performance improvement and development could help shed new light on the areas this study did not cover (Armson et al., 2019).

The second recommendation for future study is to explore intervention models that may commence as early as in medical school because burnout is an outcome of systems that

developed within medical education (Szarko et al., 2022). Self-styled resilience models can improve personal resilience (Fessell & Cherniss, 2020). Although organizational efforts for boosting resilience must be continuous, research must also focus on how such independence can shift the paradigm to encourage individual participation in their resilience. Quasi-employee contract terms that encourage physicians to take time off without fear of losing their job may help protect their dignity and insulate them from the stigma that may come with admitting that they are experiencing burnout.

Reflections

This section will discuss the personal growth and biblical integration gained from conducting this study. In the personal and professional growth section, the researcher explains several lessons learned from conducting the study. Additionally, the researcher highlighted the concepts identified from the study using a Christian worldview perspective in the biblical integration section.

Personal & Professional Growth

Undertaking this research has been part fulfillment of a lifelong dream. It has also enriched the researcher's perception of healthcare systems, especially the U.S., and increased the appreciation for physicians and healthcare providers. Although the research exposed the bleak side of healthcare, the researcher derived an element of personal enrichment from learning more about the extent of human perseverance and willpower, considering the personal investment of physicians into their future and the continuous subjectivity to the whims of society. First, the researcher learned about the difficulties of interviewing physicians because of their hectic schedules. Recruiting participants for this study involved making numerous telephone calls and sending emails, most of which went unanswered. Most of the study participants agreed to an

interview eventually and mostly gave only moments' notice. The researcher also had to apply to the in-house IRB of one of the organizations. Eventually, the researcher obtained approval, but the recruitment difficulty remained because that process was merely for approval. It did not improve access as it did not result in an introduction to the physicians. Recruitment difficulties are understandably related to physicians' demanding schedules, making it imperative that the researcher adjust the interview schedule frequently. The researcher made extraordinary schedules because some physicians were only available in-between patient visits, whereby the researcher had to maintain COVID precautions to safeguard patients and visitors at the location.

This study also enabled the researcher to appreciate further the importance of healthcare legislation such as the Affordable Care Act (ACA) of 2010) and became more passionate about researching the topic. As a healthcare practitioner, it is often frustrating to watch the complexities in the system, which also serves as the foundation and culmination of physician burnout. This researcher has also come to understand the helplessness of physicians and their passions in healthcare discussions (Krugman, 2020). The researcher also learned of the depth of political influence on all aspects of human lives, especially in healthcare, as it continues to unravel daily.

The research revealed the importance of physician resilience in burnout prevention, a different stance from before the research commenced. The researcher noted that many writers believe that promoting resilience amounts to making the physician responsible for burnout prevention, thereby absorbing the management of responsibilities and encouraging employers to maintain the status quo. In contrast with this literature, the researcher believes that resilience is not positioned as a cure but remains the only viable strategy and requires a workplace leader's dedication. Physicians cannot just wait for the system to fix itself. Involving every physician in

advocacy efforts would be ideal, although not everyone is able and willing to do so (Aggarwal & Kim, 2019).

Biblical Perspective

The researcher found several Biblical implications for healthcare practitioners and managers related to this study. First, we live in one of the busiest and most fast-paced times in history, even before the COVID-19 pandemic. Physicians are currently undergoing professionals are working harder than ever before. Work, however, is not the anomaly. God is the mastermind of work, as recorded in Genesis, where God worked for six days in the creation process. He also intends for human beings to work because only then can there be a continuity of the world that God wants and for the goods in wants the world to share. Also, secular work is part of livelihood and sustenance. To Christians, work is more than that because work gives purpose and is a calling (Genesis 1:28, 2:15; Colossians 3:23; 2 Thessalonians 3:10 NIV), and in 2 Chronicles where he elaborated more, saying, " In everything that he undertook in the service of God's temple and in obedience to the law and the commands, he sought his God and worked wholeheartedly. And so he prospered."

Also, stress and burnout can occur in any service or helping profession, including vocational and church ministries. Christians are also often self-sacrificial (Philippians 2:6–8), giving beyond themselves (Mathew 20:27). The Bible recorded that Christ persisted and remained under pressure despite the constant demand for his life, and no one else carried such tremendous stress. Elijah also gave his whole life to the service of the Lord. He stood for righteousness in a time of great darkness. Nevertheless, despite his efforts, disbelief, wickedness, and unfaithfulness among the Israelites drove him to despair. A parallel between physicians and Christians is that work is also the outcome of genuine concern for others, human proliferation,

and service to the public good. The realities sometimes are the type of dissatisfaction that is the focus of this research. Amid all this exertion, it is human sometimes to feel deserted, believing that negative life occurrences are antithesis and God's punishment. So then what? If, as mere human mortals, who lack extraordinary power, we fall to the economic demands or demands of our vocation? Although quitting is the easiest and self-pity may be therapeutic. Christians are not immune to the stress and burnout from demands of economic realities, the pressure of vocations, or providing services. Burnout can occur in any service. The Bible tells of God's restoration power and the need to trust Him to make our paths straight (Proverbs 3:5-6).

Also, Christ gave us a model. He kept balance as many requests as there were of him, with people wanting healing and food. He lived a stress-free life by being intentional about rejuvenation. He got alone when necessary. He got up early and went to pray in solitude (Mark 1:35), relaxed as needed (Matthew 11:19), and got together with people when he needed company. He specifically requested company in Gethsemane (Matthew 26:38). Also, it is difficult to talk someone out of stress and burnout, especially in the throes of clinical challenges; we must be intentional about being well. In Philippians 4:6-7, God commanded our trust and faith, "Do not be anxious about anything, but in everything by prayer and supplication with thanksgiving let your requests be made known to God. And the peace of God, which surpasses all understanding, will guard your hearts and your minds in Christ Jesus." (NIV).

Stress and burnout are imminent regardless of the assigned term or description (Ofei-Dodoo et al., 2020). We may call it frustration, circumstances, or life. Although arguably preventable in ideal situations, in which business is not the constant descriptor. Christ's suffering on the cross for the sins he did not commit can give us a perspective. Although no one should aspire or be contended to surfer like he did because no other grace compares to Christ, we will

do better for ourselves, irrespective of our profession, to prepare for it. Just like P08, who confided their recovery journey during the interview, saying, "It (Stress and burnout) was really bad before now. I searched for a long time before I found a good psychiatrist. This one is much better. I am in a better place now".

It is essential also to note the joy of triumphant in Christ. Burnout is not a permanent injury. Physicians can recover from burnout. Burned-out physicians can achieve recovery with faith in Christ, the pioneer, and perfecter of faith because, according to the Bible, "I can do all this through him who gives me strength." (Philippians 4:13). The "all" is crucial to note. Also, "For I am convinced that neither death nor life, neither angels nor demons, neither the present nor the future, nor any powers, neither height nor depth, nor anything else in all creation, will be able to separate us from the love of God that is in Christ Jesus our Lord. (Romans 8:38-39). The Bible indicates that there is hope in continuing in our calling and avoiding burning out and assures us of achieving this by remaining connected to the vine (John 15:1-17). So therefore, fear may be valid, especially in this situation where it is a matter of life and death; trusting is still the only hope for survival here. With God at the top, we shall praise our way out of the grave only because it cannot always be night. Even when one is not ready for the day to break does not keep the night longer (Brooks, 1991).

Summary of Reflections

This study focused on the workplace conditions contributing to physician burnout. The research also contributed to the researcher’s personal and professional growth and spiritual upliftment. The researcher learned much more about the U.S. healthcare system and the enormous impact of national politics on the system. On a personal level, through the participant interviews, the researcher was astonished to learn the extent to which psychosocial health

determinants impact the physician's work. In addition, physicians express the inherent difficulties and helplessness when facing the dilemma of limited resources. From a professional standpoint, the researcher learned about interview coding and the numerous processes of theme development (Creswell & Poth, 2018). Nevertheless, the researcher gained a better understanding of human development strategies and their application to healthcare management.

As a Christian, conducting the research also compelled more study, and understanding God's word reinforces the researcher's total dependence on God for all things. This research also widened the researcher's worldview. During the interview process and the writing, the term "what a life" comes to mind daily to express the researcher's new appreciation and perception of the complexity of human existence and the amazement at others' limited understanding that all are each other's journey partners in the walk of life.

Summary of Section 3

This section focused on the application to professional practice and implications, including the presentation of the findings, suggestions for improving business practice, potential application strategies, and reflections. The research implemented a flexible qualitative multiple-case method using a purposive sample of 21 primary care physicians to reveal the statistics behind the phenomenon. The researcher established that nuances in the different care workplaces are crucial in understanding physician burnout. The study established this by drawing participants from diverse workplaces of primary care physicians such as medical doctors (MD), doctors of nursing (DNP), and nurse practitioners (NP). The workplace settings included family practice, internal medicine, general pediatrics, geriatrics and obstetrics, and gynecology. Using a purposive sample, the researcher interviewed participants in (a) Federally Qualified Healthcare Center (FQHC), (b) sizeable tertiary healthcare organizations, (c) pediatric health, (d) psychiatry,

(e) military hospitals, (f) for-profit organizations such as retail office clinics, (g) and independent practices.

The researcher implemented a systematic data collection through the Well-Being Index and SurveyMonkey applications. The researcher distributed recruitment materials via email to prospects. Moreover, the researcher conducted individual one-on-one interviews with 21 participants via telephone, telephone, Zoom, and physical visits using a 32-question. The researcher designed a 32-question interview guide for the study. The researcher later carried out a systematic data analysis process as detailed by Creswell & Poth (2018), after which the researcher answered the research questions and arrived at the conclusions. The individual interview data and literature supports the findings and themes, which also mirror the national data.

The study's five main themes are workload, healthcare financing and insurance, workplace resources, systemic issues, and the COVID-19 pandemic. Theme 1, workload, refers to work intensity; theme 2 is health insurance. Theme 3 is the limited workplace resources and their ramifications; theme 4 is systemic issues affecting healthcare practice, and theme 5 is the challenges arising from the COVID-19 pandemic. The researcher discussed the findings' relationship to the problem, the research framework, and the literature, focusing on similarities and differences. Also, the researcher compared the findings to the anticipated and unanticipated themes and discussed the missing theme highlighting how the identified themes will likely lead to physician shortage through attrition. Additionally, the researcher provided commentary about reflection and discussed the topic from a Christian worldview perspective.

Summary and Study Conclusion

The purpose of this flexible multiple-case study research is to add to the body of knowledge by addressing the general problem of the prevalence of physician burnout, resulting in potential physician shortages, and the specific problem of how potential workplace conditions affect physician burnout, resulting in physician shortages in Maryland state. Understanding how workplace issues contribute to burnout can improve consistent burnout classifications and better identify the causes and effects, creating clear pathways to developing appropriate interventions. To understand this problem, the researcher crafted three research questions:

- How have workplace conditions affected the likelihood of physician burnout?
- What workplace conditions or experiences are responsible for contributing to physician burnout?
- How do physicians describe their experience with burnout, and how does burnout contribute to physician attrition or shortage in this care facility?

The study implemented the well-being conceptual framework, which is unequivocal for analyzing psychological health and crucial to a systemwide effort of burnout reduction (Shanafelt & Noseworthy. 2017). The results of this study indicate that the challenges are on a larger scale. Themes such as systemic issues encompassing healthcare disparities, a hyper-litigious system, and faulty medical education are deeply rooted in the U.S. healthcare system. Authors such as Baiu et al. (2020) believe that given physicians' strength of character, strong values, and hard work, burnout in this group must be an outcome of the healthcare system. Continuous demand for higher values in the face of dwindling resources, the burden of more transparency and efficiency, and a move toward consolidation are contributions.

Furthermore, medicine can be technical and intellectually tasking, characterized by continuous demand to execute high-stakes decisions that often require immediate decisions and uncertainty. However, the contributing conditions reported by participants are extrinsic and differ among different settings. In the non-intense settings with higher work engagement and fewer reported causative conditions, at the very least, normal relationships with patients, meaningful intellectual, clinical research, and educational work lag in burned-out physicians. In addition, increased awareness, patient demands, and a sense of entitlement drive workload even in solo practice, where the workload should be more controlled. To distinguish such arguably patient-related scenarios from other workplace-related conditions, some participants reported that abuse from patients results from the organization's lack of actions to discourage such behaviors.

The highly commercialized healthcare system has also increased competition for patients, thereby putting physicians in fear of negative patient reviews. This awareness promotes excessive workload as the physician strives harder to satisfy even the unreasonable patients. Furthermore, patient demands are often laden with litigation threats that have increased dramatically over the years and can sometimes be frivolous. Furthermore, healthcare insurance, financing, and limited resources are two significant themes because unmet social needs affect practice by influencing treatment decisions and planning. Physicians often need to rescript and limit treatment or provide alternative treatments, sometimes challenging the profession's ethics. The burden and the time wastage in searching for cheaper options affect the physician's emotional wellness through loss of autonomy and patient advocacy, evidenced by the emotions displayed by some participants when discussing their helplessness of the multiplicity of determinants of health and the lack of resources to address these social needs.

Understanding the physician burnout problem cannot be separated from U.S. politics and systemic influences (Bambra et al., 2019). In addition to specific workplace conditions, increasing political threats have intensified disillusion about medical careers. Research on physician burnout will be incomplete without acknowledging the hatred and backlash suffered by the healthcare community following the COVID-19 pandemic. Understandably, the morbidity and deaths brought out the worst in everyone. However, victimizing the very group of people on the front line of the efforts who are simultaneously learning about the new disease in a deadly pandemic with limited national preparedness and resources can only worsen the challenges of burnout. The only remedy may reside in the human resource management strategies shoring up and helping physicians resist burnout. This researcher nevertheless believes in the biblical words of Galatians 6:9 “Let us not become weary in doing good, for at the proper time we will reap a harvest if we do not give up” (NIV).

References

Aarsand, L., & Aarsand, P. (2019). Framing and switches at the outset of qualitative research interviews. *Qualitative Research, 19*(6), 635–652. https://doi.org/10.1177/1468794118816623

Abma, T. A., & Stake, R. E. (2014). Science of the particular: An advocacy of naturalistic case study in health research. *Qualitative Health Research, 24*(8), 1150-1161. https://doi.org/10.1177/1049732314543196

Abraham, C.M., Zheng, K., & Poghosyan, L. (2020). Predictors and outcomes of burnout among primary care providers in the United States: A systematic review. *Medical Care Research and Review: MCRR.*, *77*(5), 387–401. https://doi.org/10.1177/1077558719888427

Adhabi, E., & Anozie, C. B. (2017). Literature review for the type of interview in qualitative research. *International Journal of Education*, *9*(3), 86-97.

Agarwal, S. D., Pabo, E., Rozenblum, R., & Sherritt, K. M. (2020). Professional dissonance and burnout in primary care: A qualitative study. *JAMA Internal Medicine, 180*(3), 395-401.

Aggarwal, R., & Kim, K. (2019). Resilience: Management for the disease of physician burnout. *Psychiatric Services (Washington, D.C.), 70*(12), 1181-1181. https://doi.org/10.1176/appi.ps.701102

Agrawal, R., & Prabakaran, S. (2020). Big data in digital healthcare: Lessons learnt and recommendations for general practice. *Heredity, 124*(4), 525-534. https://doi.org/10.1038/s41437-020-0303-2

Alam, M. K. (2021). A systematic qualitative case study: Questions, data collection, NVivo analysis, and saturation. *Qualitative Research in Organizations and Management, 16*(1), 1-31. https://doi.org/10.1108/QROM-09-2019-1825

Alderwick, H., & Gottlieb, L. M. (2019). Meanings and misunderstandings: A social determinants of health lexicon for health care systems. *The Milbank Quarterly, 97*(2), 407.

Alharahsheh, H. H., & Pius, A. (2020). A review of key paradigms: Positivism VS Interpretivism. *Global Academic Journal of Humanities and Social Sciences*, *2*(3), 39-43.

Ames, H., Glenton, C., & Lewin, S. (2019). Purposive sampling in a qualitative evidence synthesis: A worked example from a synthesis on parental perceptions of vaccination communication. *BMC Medical Research Methodology, 19*(1), 26-26. https://doi.org/10.1186/s12874-019-0665-4

Amin, M. E. K., Nørgaard, L. S., Cavaco, A. M., Witry, M. J., Hillman, L., Cernasev, A., & Desselle, S. P. (2020). Establishing trustworthiness and authenticity in qualitative pharmacy research. *Research in Social and Administrative Pharmacy*.

Anandarajah, A. P., Quill, T. E., & Privitera, M. R. (2018). Adopting the quadruple aim: The University of Rochester Medical Center experience: Moving from physician burnout to physician resilience. *The American Journal of Medicine*, *131*(8), 979-986.

Archibald, M. M., Ambagtsheer, R. C., Casey, M. G., & Lawless, M. (2019). Using zoom videoconferencing for qualitative data collection: Perceptions and experiences of researchers and participants. *International Journal of Qualitative Methods, 18*, 160940691987459. https://doi.org/10.1177/1609406919874596

Armson, H., Lockyer, J. M., Zetkulic, M., Koenings, K. D., & Sargeant, J. (2019). Identifying coaching skills to improve feedback use in postgraduate medical education. *Medical Education, 53*(5), 477-493. https://doi.org/10.1111/medu.13818

Arndt, B. G., Beasley, J. W., Watkinson, M. D., Temte, J. L., Tuan, W. J., Sinsky, C. A., & Gilchrist, V. J. (2017). Tethered to the EHR: Primary care physician workload assessment using EHR event log data and time-motion observations. *The Annals of Family Medicine, 15*(5), 419-426.

Ashton-James, C. E., & McNeilage, A. G. (2022). A mixed methods investigation of stress and well-being factors contributing to burnout and job satisfaction in a specialist small animal hospital. *Frontiers in Veterinary Science*, *9*, 942778. https://doi.org/10.3389/fvets.2022.942778

Aspers, P., & Corte, U. (2019). What is qualitative in qualitative research? *Qualitative Sociology, 42*(2), 139-160. http://dx.doi.org.ezproxy.liberty.edu/10.1007/s11133-019-9413-7

Association of American Medical Colleges (AAMC) (2018). The complexity of physician supply and demand: Projections from 2016 to 2030. *Association of American Medical Colleges*. Retrieved from HTTPS:// *AAMC*-black.global.ssl.fastly.net/production/media/filer_public/ 85/d7/85d7b689-f417-4ef0-97fb-ecc129836829/aamc_2018_ workforce_projections_update_april_11_2018.pdf.

Association of American Medical Colleges (AAMC) (2021). *The Complexities of Physician Supply and Demand: Projections From 2019 to 2034*. https:// *AAMC*-black.global.ssl.fastly.net/production/media/filer_public/85/d7/85d7b6 89-f417-4ef0-97fb-ecc129836829/aamc_2021_workforce_projections_ update_June_2021.pdf

Association of American Medical Colleges. *AAMC Endorses Resident Physician Shortage Reduction Act of 2021*(2021). https://www.aamc.org/news-insights/press-releases/aamc-endorses-resident-physician-shortage-reduction-act-2021

Atkinson, P., Ducharme, J., & Campbell, S. (2017). CJEM debate series: #Burnout – burnout is inevitable in clinical emergency medicine practice. *Canadian Journal of Emergency Medicine, 19*(5), 386-389. https://doi.org/10.1017/cem.2017.395

Atmowardoyo, H. (2018). Research methods in TEFL studies: Descriptive research, case study, error analysis, and R & D. *Journal of Language Teaching and Research, 9*(1), 197-204. https://doi.org/10.17507/jltr.0901.25

Attenello, Buchanan, I. A., Wen, T., Donoho, D. A., McCartney, S., Cen, S. Y., Khalessi, A. A., Cohen-Gadol, A. A., Cheng, J. S., Mack, W. J., Schirmer, C. M., Swartz, K. R., Prall, J. A., Stroink, A. R., Giannotta, S. L., & Klimo, P. (2018). Factors associated with burnout among US neurosurgery residents: a nationwide survey. *Skull Base*, *129*(5), 1349–1363. https://doi.org/10.3171/2017.9.JNS17996

Austin, J. R. (2021). Bravado, blind spots, and blunt force: Making the case for reflective researchers. *Journal of Music Teacher Education*, *31*(1), 6–8. https://doi.org/10.1177/10570837211048368

Back, A. L., Steinhauser, K. E., Kamal, A. H., & Jackson, V. A. (2016). Building resilience for palliative care clinicians: An approach to burnout prevention based on individual skills and workplace factors. *Journal of Pain and Symptom Management, 52*(2), 284-291. doi:10.1016/j.jpainsymman.2016.02.002

Bahadir-Yilmaz, & Kurşun, A. (2021). Opinions of staff working in workplace-violence-related units on violence against nurses: A qualitative study. *Archives of Environmental & Occupational Health.*, *76*(7), 424–432. https://doi.org/10.1080/19338244.2020.1832035

Baiu, I., Titan, A., Kin, C., & Spain, D. A. (2020). Caring for caregivers – resident physician health and wellbeing. *Journal of Surgical Education, 77*(1), 13-17. https://doi.org/10.1016/j.jsurg.2019.08.007

Baker, B., Kesler, D., & Guidotti, T. (2020). Occupational and environmental medicine: Public health and medicine in the workplace. *American Journal of Public Health* (1971)*, 110*(5), 636-637. doi:10.2105/AJPH.2020.305625

Balch, C. M., Oreskovich, M. R., Dyrbye, L. N., Colaiano, J. M., Satele, D. V., Sloan, J. A., & Shanafelt, T. D. (2011). Personal consequences of malpractice lawsuits on American surgeons. *Journal of the American College of Surgeons*, *213*(5), 657-667. https://doi.org/10.1016/j.jamcollsurg.2011.08.005

Bambra, C., Smith, K. E., & Pearce, J. (2019). Scaling up: The politics of health and place. *Social Science & Medicine (1982)*, 232, 36-42. https://doi.org/10.1016/j.socscimed.2019.04.036

Banerjee, S., Califano, R., Corral, J., de Azambuja, E., De Mattos-Arruda, L., Guarneri, V., … Strijbos, M. (2017). Professional burnout in young European oncologists: Results of the European Society for Medical Oncology (ESMO) young oncologists committee burnout survey. *Annals of Oncology.*, *28*(7), 1590–1596. https://doi.org/10.1093/annonc/mdx196

Belotto, M. J. (2018). Data analysis methods for qualitative research: Managing the challenges of coding, interrater reliability, and thematic analysis. *The Qualitative Report, 23*(11), 2622-2633.

Benatar, S., & Daneman, D. (2020). Disconnections between medical education and medical practice: A neglected dilemma. *Global Public Health*, *1*(16).

Bengtsson, M., Malmö University, Faculty of Health, and Society, & Care Science (VV). (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open, 2*, 8-14. https://doi.org/10.1016/j.npls.2016.01.001

Bergen, N., & Labonté, R. (2020). "Everything is perfect, and we have no problems": Detecting and limiting social desirability bias in qualitative research. *Qualitative Health Research, 30*(5), 783-792. https://doi.org/10.1177/1049732319889354.

Bergquist, W., & Mura, A. (2011). *Coach book: A guide to organizational coaching strategies & practices*. CreateSpace Independent Publishing Platform.

Bhavaraju, S. (2018). From subconscious to conscious to artificial intelligence: A focus on electronic health records. *Neurology India, 66*(5), 1270-1275. https://doi.org/10.4103/0028-3886.241377

Bianchi, R., & Schonfeld, I. S. (2017). Defining physician burnout and differentiating between burnout and depression. *Mayo Clinic Proceedings, 92* (9), 1455.

Bianchi, R., Schonfeld, I. S., & Laurent, E. (2015). Burnout–depression overlap: A review. *Clinical Psychology Review*, *36*(28) 41. G.

Bianchi, R., Schonfeld, I. S., & Laurent, E. (2017). Physician burnout is better conceptualized as depression. *The Lancet, 389*(10077), 1397-1398. http://dx.doi.org.ezproxy.liberty.edu/10.1016/S0140-6736(17)30897-8

Bianchi, R., Schonfeld, I. S., & Laurent, E. (2018). Burnout syndrome and depression. In *Understanding Depression* (pp.187-202). Springer, Singapore.

Bisrat, A., Minda, D., Assamnew, B., Abebe, B., & Abegaz, T. (2021). Implementation challenges and perception of care providers on electronic medical records at St. Paul's

and Ayder Hospitals, Ethiopia. *BMC Medical Informatics and Decision Making, 21*(1), 1-306. https://doi.org/10.1186/s12911-021-01670-z

Biswas, S., Pamucar, D., Chowdhury, P., & Kar, S. (2021). A new decision support framework with picture fuzzy information: Comparison of video conferencing platforms for higher education in India. *Discrete Dynamics in Nature and Society, 2021*, 1-22. https://doi.org/10.1155/2021/2046097

Bleiker, J., Morgan-Trimmer, S., Knapp, K., & Hopkins, S. (2019). Navigating the maze: Qualitative research methodologies and their philosophical foundations. *Radiography (London, England. 1995), 25*, S4-S8. https://doi.org/10.1016/j.radi.2019.06.008

Blouin, A. S., & Podjasek, K. (2019). The continuing saga of nurse staffing. *The Journal of Nursing Administration (JONA), 49*(4), 221–227.

Blumenthal, D., Fowler, E. J., Abrams, M., & Collins, S. R. (2020). Covid-19 — implications for the health care system. *The New England Journal of Medicine, 383*(15), 1483-1488. https://doi.org/10.1056/NEJMsb2021088

Bodenheimer, T., & Sinsky, C. (2014). From triple to quadruple aim: Care of the patient requires care of the provider. *The Annals of Family Medicine*, *12*(6), 573-576.

Bohman, B., Dyrbye, L., Sinsky, C. A., Linzer, M., Olson, K., Babbott, S., ... & Trockel, M. (2017). Physician well-being: The reciprocity of practice efficiency, culture of wellness, and personal resilience. *NEJM Catalyst*, *3*(4).

Bradley, E. H., Sipsma, H., & Taylor, L. A. (2017;2016;). American health care paradox-high spending on health care and poor health. *QJM: Monthly Journal of the Association of Physicians, 110*(2), 61-65. https://doi.org/10.1093/qjmed/hcw187

Bradshaw, C., Atkinson, S., & Doody, O. (2017). Employing a qualitative description approach in health care research. *Global Qualitative Nursing Research, 4*, 2333393617742282-2333393617742282. https://doi.org/10.1177/2333393617742282

Brady, K. J., Trockel, M. T., Khan, C. T., Raj, K. S., Murphy, M. L., Bohman, B., Frank, E., Louie, A.K. & Roberts, L. W. (2018). What do we mean by physician wellness? A systematic review of its definition and measurement. *Academic Psychiatry*, *42*(1), 94-108.

Braun, V., & Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health, 13*(2), 201-216. https://doi.org/10.1080/2159676X.2019.1704846

Brigham, T., Barden, C., Legreid Dopp, A., Hengerer, A., Kaplan, J., Malone, B., Martin, C., McHugh, M., Nora, L. M., University of Pennsylvania School of Nursing, American Board of Medical Specialties, Federation of State Medical Boards, American Society of Health System Pharmacists, National League for Nursing, American College of Emergency Physicians, Accreditations Council for Graduate Medical Education, & American Association of Critical Care Nurses. (2018). A journey to construct an all-encompassing conceptual model of factors affecting clinician well-being and resilience. *NAM Perspectives, 8*(1), https://doi.org/10.31478/201801b

Brindley, P. G., Olusanya, S., Wong, A., Crowe, L., & Hawryluck, L. (2019). Psychological 'burnout' in healthcare professionals: Updating our understanding, and not making it worse. *Journal of the Intensive Care Society, 20*(4), 358-362. https://doi.org/10.1177/1751143719842794

Brooks, G. (1991). Speech to the young: Speech to the progress-toward (among them Nora and Henry III). *Poetry Society of America*.

Brower, K. J., & Riba, M. B. (2017). *Physician mental health and well-being: Research and practice*. Springer.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing, 25*(8), 652-661. https://doi.org/10.1177/1744987120927206

Candela, A. (2019). Exploring the function of member checking. *Qualitative Report, 24*(3), 619-628. https://doi.org/10.46743/2160-3715/2019.3726

Carolan, C. M., Forbat, L., & Smith, A. (2016). Developing the DESCARTE Model: The design of case study research in health care. *Qualitative Health Research, 26*(5), 626–639. https://doi.org/10.1177/1049732315602488

Cerchione, Centobelli, P., Riccio, E., Abbate, S., & Oropallo, E. (2022). Blockchain's coming to hospital to digitalize healthcare services: Designing a distributed electronic health record ecosystem. *Technovation.* https://doi.org/10.1016/j.technovation.2022.102480

Chakraborty, & Biswas, W. (2020). Articulating the value of human resource planning (HRP) activities in augmenting organizational performance toward a sustained competitive firm. *Journal of Asia Business Studies., 14*(1), 62–90.

Chen, H. C., & Teherani, A. (2016). Common qualitative methodologies and research designs in health professions education. *Academic Medicine : Journal of the Association of American Medical Colleges*, *91*(12), e5. https://doi.org/10.1097/ACM.0000000000001392

Chetlen, A. L., Chan, T. L., Ballard, D. H., Frigini, L. A., Hildebrand, A., Kim, S., Brian, J.M., Krupinski, E.A. & Ganeshan, D. (2019). Addressing burnout in radiologists. *Academic Radiology*, *26*(4), 526-533.

Cho, H. L., & Huang, C. J. (2020). Why mental health-related stigma matters for physician wellbeing, burnout, and patient care. *Journal of General Internal Medicine*, 1(3).

Chun Tie, Y., Birks, M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. SAGE *Open Medicine, 7*, 2050312118822927-2050312118822927. https://doi.org/10.1177/2050312118822927

Chung, S., Dillon, E. C., Meehan, A. E., Nordgren, R., & Frosch, D. L. (2020). The relationship between primary care physician burnout and patient-reported care experiences: A cross-sectional study. *Journal of General Internal Medicine: JGIM, 35*(8), 2357-2364. https://doi.org/10.1007/s11606-020-05770-w

Cisco. (2019). *Create recording transcripts in Cisco WebEx meetings and events*.

Clare, M. M. (2020). Qualitative research methods render and advance consultation practice: Here's why that matters. *Journal of Educational and Psychological Consultation, 1*-13. https://doi.org/10.1080/10474412.2020.1768859

Clark, K. R. (2018). Learning theories: Constructivism. *Radiologic Technology, 90*(2), 180-182.

Clark, K. R., & Vealé, B. L. (2018). Strategies to enhance data collection and analysis. Collection and Analysis in Qualitative Research. *Radiologic Technology, 89*(5), 482CT–485CT.

Cleland, J. A., Durning, S. J., & Essen, E. (2018). Medical education research: Aligning design and research goals. *Medical Journal of Australia, 208*(11), 473-475. doi:10.5694/mja17.0094

Coleman, Phil, F.SfE.T.M.Ed B.Sc (Hons) Dip N.Cert Ed R.M.N. (2021). Validity and Reliability within Qualitative Research in the Caring Sciences. *International Journal of Caring Sciences, 14*(3), 2041-2045. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fvalidity-reliability-within-qualitative-research%2Fdocview%2F2630949017%2Fse-2

Colgan, R. (2021, December 12). Rural communities face shortage of doctors that tax credit might help. *Baltimore Sun*. https://www.baltimoresun.com/opinion/readers-respond/bs-ed-rr-physician-tax-credit-letter-20211223-yamufvultzgsjpdluzn27qbunq-story.html

Collingridge, D. S., & Gantt, E. E. (2019). The quality of qualitative research. *American Journal of Medical Quality, 34*(5), 439-445. https://doi.org/10.1177/1062860619873187

Combes, J. R. (2019). Physician Wellbeing in Changing Times. *Transforming the Heart of Practice: An Organizational and Personal Approach to Physician Wellbeing*, 3-7.

Constantinou, C. S., Georgiou, M., & Perdikogianni, M. (2017). A comparative method for themes saturation (CoMeTS) in qualitative interviews. *Qualitative Research*, *17*(5), 571–588. https://doi.org/10.1177/1468794116686650

Corona, K., Campos, B., & Chen, C. (2017). Familism is associated with psychological well-being and physical health: Main effects and stress-buffering effects. *Hispanic Journal of Behavioral Sciences*, *39*(1), 46-65.

Corry, M., Porter, S., & McKenna, H. (2019). The redundancy of positivism as a paradigm for nursing research. *Nursing Philosophy, 20*(1), e12230-n/a. https://doi.org/10.1111/nup.12230

Costa, D. K., & Moss, M. (2018). The cost of caring: Emotion, burnout, and psychological distress in critical care clinicians. *Annals of the American Thoracic Society, 15*(7), 787-790. https://doi.org/10.1513/AnnalsATS.201804-269PS

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: SAGE Publications

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Creswell, J. W., & Creswell, D. J. (2018). *Research design: Qualitative, quantitative, and mixed methods approach* (5th ed.). SAGE Publications Inc.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Croughan, P., & Gee, R. E. (2019). How should physicians steward limited resources while ensuring that patients can access needed medicines? *AMA Journal of Ethics*, *21*(8), 630-635.

Crowley, R., Daniel, H., Cooney, T. G., Engel, L. S., Health and Public Policy Committee of the American College of Physicians, & for the Health and Public Policy Committee of the American College of Physicians. (2020). Envisioning a better U.S. health care system for all: Coverage and cost of care. *Annals of Internal Medicine, 172*(2_Supplement), S7-S32. https://doi.org/10.7326/M19-2415

Cypress, B. S. (2019). *Data Analysis Software in Qualitative Research. Dimensions of Critical Care Nursing, 38* (4), 213-220. DOI: 10.1097/DCC.0000000000000363.

D'Onofrio, L. (2019). Physician burnout in the United States: A call to action. *Alternative Therapies in Health & Medicine*, 25(2), 8–10. Retrieved from http://www.alternative-therapies.com.

Dai, M., Willard-Grace, R., Knox, M., Larson, S. A., Magill, M. K., Grumbach, K., & Peterson, L. E. (2020). Team configurations, efficiency, and family physician burnout. *Journal of the American Board of Family Medicine, 33*(3), 368-377. https://doi.org/10.3122/jabfm.2020.03.190336

Del Carmen, M. G., Herman, J., Rao, S., Hidrue, M. K., Ting, D., Lehrhoff, S. R., Lenz, S., Heffernan, J., & Ferris, T. G. (2019). Trends and factors associated with physician burnout at a multispecialty academic faculty practice organization. *JAMA Network Open*, *2*(3), e190554. https://doi.org/10.1001/jamanetworkopen.2019.0554

Denny, E. & Weckesser, A. (2019). Qualitative research: what it is and what it is not. *BJOG : an International Journal of Obstetrics and Gynaecology.*, *126*(3), 369–369. https://doi.org/10.1111/1471-0528.15198

Dewa, C. S., Loong, D., Bonato, S., & Trojanowski, L. (2017). The relationship between physician burnout and quality of healthcare in terms of safety and acceptability: A systematic review. *BMJ Open, 7*(6), e015141-e015141. https://doi.org/10.1136/bmjopen-2016-015141

Dillon, E. C., Tai-Seale Ming, Meehan, A., Martin, V., Nordgren, R., Lee, T., Nauenberg, T., & Frosch, D. L. (2020). Frontline perspectives on physician burnout and strategies to improve well-being: interviews with physicians and health system leaders. *Journal of General Internal Medicine, 35*(1), 261-267. http://dx.doi.org.ezproxy.liberty.edu/10.1007/s11606-019-05381-

Dörfler, V., & Stierand, M. (2021). Bracketing: A phenomenological theory applied through transpersonal reflexivity. *Journal of Organizational Change Management, 34*(4), 778-793. https://doi.org/10.1108/JOCM-12-2019-0393.

Doulougeri, K., Georganta, K., & Montgomery, A. (2016). "Diagnosing" burnout among healthcare professionals: Can we find consensus? *Cogent Medicine*, *3*(1), 1237605.

Downing, N. L., Bates, D. W., & Longhurst, C. A. (2018). Physician burnout in the electronic health record era: Are we ignoring the real cause? *Annals of Internal Medicine, 169*(1), 50-51. https://doi.org/10.7326/M18-0139

Downing, N. L., Bates, D. W., & Longhurst, C. A. (2019). Physician burnout in the electronic health record era. *Annals of internal medicine*, *170*(3), 216-217.

Dunson, J. A. (2020). Stoicism and contemporary medical ethics. *The Routledge Handbook of Hellenistic Philosophy*.

Dyrbye, L. N., Burke, S. E., Hardeman, R. R., Herrin, J., Wittlin, N. M., Yeazel, M., Dovidio, J. F., Cunningham, B., White, R. O., Phelan, S. M., Satele, D. V., Shanafelt, T. D., & van Ryn, M. (2018). Association of clinical specialty with symptoms of burnout and career choice regret among US resident physicians. *JAMA : The Journal of the American Medical Association, 320*(11), 1114-1130. https://doi.org/10.1001/jama.2018.12615

Dyrbye, L. N., Shanafelt, T. D., Sinsky, C. A., Cipriano, P. F., Bhatt, J., Ommaya, A., ... & Meyers, D. (2017). Burnout among health care professionals: A call to explore and address this underrecognized threat to safe, high-quality care. *NAM Perspectives*.

Earle, K. M. (2017). Burnout in NSW school counselors: Relationships between mindfulness, career-sustaining practices, and work setting. *Journal of Student Engagement: Education Matters*, *7*(1), 71-96.

Eckleberry-Hunt, J., Kirkpatrick, H., & Barbera, T. (2018). The problems with burnout research. *Academic Medicine*, *93*(3), 367-370.

Edwards, S. T., Marino, M., Balasubramanian, B. A., Solberg, L. I., Valenzuela, S., Springer, R., Stange, K. C., Miller, W. L., Kottke, T. E., Perry, C. K., Ono, S., & Cohen, D. J. (2018). Burnout among physicians, advanced practice clinicians, and staff in smaller primary care practices. *Journal of General Internal Medicine: JGIM, 33*(12), 2138-2146. https://doi.org/10.1007/s11606-018-4679-0

Ellner, A. L., & Phillips, R. S. (2017). The coming primary care revolution. *Journal of General Internal Medicine, 32*(4), 380-386.

Elshaer, N. S. M., Moustafa, M. S. A., Aiad, M. W., & Ramadan, M. I. E. (2018). Job stress and burnout syndrome among critical care healthcare workers. *Alexandria Journal of Medicine*, *54*(3), 273-277.

Eppich, W. J., Rethans, J.-J., Dornan, T., & Teunissen, P. W. (2018). Learning how to learn using simulation: Unpacking disguised feedback using a qualitative analysis of doctors' telephone talk. *Medical Teacher*, *40*(7), 661–667. https://doi-org.ezproxy.liberty.edu/10.1080/0142159X.2018.1465183

Epstein, R. M., & Privitera, M. R. (2016). Doing something about physician burnout. *The Lancet (British Edition), 388*(10057), 2216-2217. https://doi.org/10.1016/S0140-6736(16)31332-0

Eriksson, P., & Kovalainen, A. (2016). *Qualitative method in business research*, *(2nd ed.).* Sage.

Eschelbach, M. M. (2018). Discussion: A proposed review and fix for burnout. *Physician Leadership Journal, 5*(6), 46.

Escribà-Agüir, V., Martín-Baena, D., & Pérez-Hoyos, S. (2006). Psychosocial work environment and burnout among emergency medical and nursing staff. *International Archives of Occupational and Environmental Health, 80*(2), 127-133. https://doi.org/10.1007/s00420-006-0110-y

Everett, C. M., Morgan, P., Smith, V. A., Woolson, S., Edelman, D., Hendrix, C. C., Berkowitz, T., White, B., & Jackson, G. L. (2019). Primary care provider type: Are there differences in patients' intermediate diabetes outcomes? *JAAPA (Montvale, N.J.), 32*(6), 36-42. https://doi.org/10.1097/01.JAA.0000558239.06875.0b

Fabio, P., Stefania, S., Elisabetta, T., Thi, T. C. N., & Iolanda, G. (2019). Public health and burnout: A survey on lifestyle changes among workers in the healthcare sector. *Acta Bio-Medica De l'Ateneo Parmense, 90*(1), 24-30. https://doi.org/10.23750/abm.v90i1.7626

Fargen, K. M., Ansari, S. A., Spiotta, A., Dabus, G., Mokin, M., Brown, P., Wolfe, S. Q., Kittel, C., Kan, P., Baxter, B. W., Leacy, R. D., Milburn, J., Munich, S. A., Ducruet, A. F., Reeves, A., Fraser, J. F., Starke, R. M., Jadhav, A. P., Mack, W. J., . . . Hirsch, J. A. (2020). Influence of thrombectomy volume on non-physician staff burnout and attrition in neuro-interventional teams. *Journal of NeuroInterventional Surgery, 12*(12), 1199-1204. https://doi.org/10.1136/neurintsurg-2020-015825

Farquhar, J., Michels, N., & Robson, J. (2020). Triangulation in industrial qualitative case study research: Widening the scope. *Industrial Marketing Management, 87*, 160-170. https://doi.org/10.1016/j.indmarman.2020.02.001

Farrokhnia, Baggen, Y., Biemans, H., & Noroozi, O. (2022). Bridging the fields of entrepreneurship and education: The role of philosophical perspectives in fostering

opportunity identification. *The International Journal of Management Education.*, *20*(2). https://doi.org/10.1016/j.ijme.2022.100632

Fessell, D., & Cherniss, C. (2020). Coronavirus disease 2019 (COVID-19) and beyond: Micropractices for burnout prevention and emotional wellness. *Journal of the American College of Radiology, 17*(6), 746-748. https://doi.org/10.1016/j.jacr.2020.03.013

Fibuch, E., & Ahmed, A. (2015). Physician turnover: A costly problem. *Physician Leadership Journal, 2*(3), 22-25.

Filut, A., Alvarez, M., & Carnes, M. (2020). Discrimination toward physicians of color: a systematic review. *Journal of the National Medical Association*, *112*(2), 117-140.

Finstad, G. L., Ariza-Montes, A., Giorgi, G., Lecca, L. I., Arcangeli, G., & Mucci, N. (2019). The JDCS model and blue-collar bullying: Decent working conditions for a healthy environment. *International Journal of Environmental Research and Public Health, 16*(18), 3411. doi:10.3390/ijerph16183411

Firew, T., Sano, E. D., Lee, J. W., Flores, S., Lang, K., Salman, K., Greene, M. C., & Chang, B. P. (2020). Protecting the front line: A cross-sectional survey analysis of the occupational factors contributing to healthcare workers' infection and psychological distress during the COVID-19 pandemic in the USA. *BMJ Open, 10*(10), e042752-e042752. https://doi.org/10.1136/bmjopen-2020-042752

Flynn, R., Albrecht, L., & Scott, S. D. (2018). Two approaches to focus group data collection for qualitative health research: Maximizing resources and data quality. *International Journal of Qualitative Methods, 17*(1), 160940691775078. https://doi.org/10.1177/1609406917750781

Fowler, N. (2018). The Power of Resilience: How Stewards in Palliative Healthcare Settings Can Leverage Resilience to Combat Staff Burnout. *Leadership in Healthcare and Public Health*.

Fred, H. L., & Scheid, M. S. (2018). Physician burnout: Causes, consequences, and cures. *Texas Heart Institute Journal*, *45*(4), 198-202.

Frels, R. K., & Onwuegbuzie, A. J. (2013). Administering quantitative instruments with qualitative interviews: A mixed research approach. *Journal of Counseling & Development, 91*(2), 184-194.

Friedberg, M. W., Reid, R. O., Timbie, J. W., Setodji, C., Kofner, A., Weidmer, B., & Kahn, K. (2017). Federally qualified health center clinicians and staff increasingly dissatisfied with workplace conditions. *Health Affairs*, *36*(8), 1469–1475. https://doi.org/10.1377/hlthaff.2017.0205

Friedberg, M. W., Rodriguez, H. P., Martsolf, G., Edelen, M. O., & Vargas-Bustamante, A. (2016). Measuring workplace climate in community clinics and health centers. *Medical Care*, *54*(10), 944.

Fronek, H., & Brubaker, L. (2019). Burnout Woman-Style: The Female Face of Burnout in Obstetrics and Gynecology. *Clinical Obstetrics and Gynecology*, *62*(3), 466-479.

Fusch, P., Fusch, G. E., & Ness, L. R. (2018). Denzin's paradigm shift: Revisiting triangulation in qualitative research. *Journal of Social Change, 10*(1). https://doi.org/10.5590/JOSC.2018.10.1.02

Gamlen, A., & McIntyre, C. (2018). Mixing methods to explain emigration policies: A post-positivist perspective. *Journal of mixed methods research*, *12*(4), 374-393.

Garcia, C. d. L., Abreu, L. C. d., Ramos, J. L. S., Castro, Caroline Feitosa Dibai de, Smiderle, F. R. N., Santos, J. A. D., & Bezerra, I. M. P. (2019). Influence of burnout on patient safety: Systematic review and meta-analysis. *Medicina (Kaunas, Lithuania), 55*(9), 553. https://doi.org/10.3390/medicina55090553

Gardner, R. L., Cooper, E., Haskell, J., Harris, D. A., Poplau, S., Kroth, P. J., & Linzer, M. (2019;2018;). Physician stress and burnout: The impact of health information technology. Journal of the American Medical Informatics Association: *JAMIA, 26*(2), 106-114. https://doi.org/10.1093/jamia/ocy145

Garrett, C. C., Doonan, R. L., Pyle, C., & Azimov, M. B. (2022). Student loan debt and financial education: A qualitative analysis of resident perceptions and implications for resident well-being. *Medical Education Online, 27*(1), 2075303-2075303. https://doi.org/10.1080/10872981.2022.2075303

Garson A. (2000). The US healthcare system, 2010: Problems, principles, and potential solutions. *Circulation*, *101*(16), 2015-2016.

Gascon, S., Leiter, M. P., Andrés, E., Santed, M. A., Pereira, J. P., Cunha, M. J., ... & Martínez-Jarreta, B. (2013). The role of aggressions suffered by healthcare workers as predictors of burnout. *Journal of Clinical Nursing*, *22*(21-22), 3120-3129.

Gazelle, G., Liebschutz, J. M., & Riess, H. (2015). Physician burnout: Coaching a way out. *Journal of General Internal Medicine: JGIM, 30*(4), 508-513. https://doi.org/10.1007/s11606-014-3144-y

Gerber, M., Colledge, F., Mücke, M., Schilling, R., Brand, S., & Ludyga, S. (2018). Psychometric properties of the Shirom-Melamed Burnout Measure (SMBM) among adolescents: Results from three cross-sectional studies. *BMC psychiatry*, *18*(1), 1-13.

Gidwani, R., Nguyen, C., Kofoed, A., Carragee, C., Rydel, T., Nelligan, I., Sattler, A., Mahoney, M., & Lin, S. (2017). Impact of scribes on physician satisfaction, patient satisfaction, and charting efficiency: A randomized controlled trial. *Annals of Family Medicine, 15*(5), 427-433. https://doi.org/10.1370/afm.2122

Gill, S. L. (2020). Qualitative Sampling Methods. *Journal of Human Lactation*, *36*(4), 579–581. https://doi.org/10.1177/0890334420949218

Glassman, S. D., Carreon, L. Y., Brown, M. E., Jones, J. S., Edward, J., Li, J., & Williams, M. V. (2019). The impact of health literacy on health status and resource utilization in lumbar degenerative disease. *The Spine Journal, 19*(4), 711-716.

Gleason, F., Malone, E., Wood, L., Baker, S. J., Hollis, R. H., Richman, J. S., Chu, D. I., & Lindeman, B. (2020). The job demands-resources model as a framework to identify factors associated with burnout in surgical residents. *The Journal of Surgical Research, 247*, 121-127. https://doi.org/10.1016/j.jss.2019.10.034

Goldberg, D. G., Soylu, T. G., Grady, V. M., Kitsantas, P., Grady, J. D., & Nichols, L. M. (2020). Burnout among physicians, advanced practice clinicians, and staff in small to medium-sized primary care practices. *The Journal of the American Board of Family Medicine*, *33*(3), 378-385.

González Rey, F. (2020). Methodological and epistemological demands in advancing the study of subjectivity from a cultural-historical standpoint. *Culture & Psychology, 26*(3), 562-577. https://doi.org/10.1177/1354067X19888185

Gore, R., & Parker, R. (2019). Analysing power and politics in health policies and systems. *Global Public Health, 14*(4), 481-488. https://doi.org/10.1080/17441692.2019.1575446

Gray, L. M., Wong-Wylie, G., Rempel, G. R., & Cook, K. (2020). Expanding qualitative research interviewing strategies: Zoom video communications. *The Qualitative Report*, *25*(5), 1292-1301.

Green, T., DeMay, J., Sierra, T., Zucker, K. W., & Unsworth, CH (MAJ) Jason D. (2020). The ethical issues of healthcare insurance coverage. *The Journal of Legal Medicine (Chicago. 1979), 40*(sup2), 41-41. https://doi.org/10.1080/01947648.2020.1833669

Gregory, K. (2019). Lessons of a failed study: Lone research, media analysis, and the limitations of bracketing. *International Journal of Qualitative Methods*, *18*, 1609406919842450.

Gregory, S. T., Menser, T., & Gregory, B. T. (2018). An organizational intervention to reduce physician burnout. *Journal of Healthcare Management, 63*(5), 338-352. https://doi.org/10.1097/JHM-D-16-00037

Greige Frangieh, C., & Khayr Yaacoub, H. (2019). Socially responsible human resource practices: Disclosures of the world's best multinational workplaces. *Social Responsibility Journal, 15*(3), 277-295. https://doi.org/10.1108/SRJ-11-2017-0226

Gristina, G. R., & Piccinni, M. (2021). Covid-19 pandemic in ICU. Limited resources for many patients: Approaches and criteria for triaging. *Minerva Anestesiologica*.

Grow, H. M., McPhillips, H. A., & Batra, M. (2019). Understanding physician burnout. *Current Problems in Pediatric and Adolescent Health Care*, *49*(11), 100656.

Gudbranson, E., Glickman, A., & Emanuel, E. J. (2017). Reassessing the data on whether a physician shortage exists. *Jama*, *317*(19), 1945-1946.

Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLoS One, 15*(5) http://dx.doi.org.ezproxy.liberty.edu/10.1371/journal.pone.0232076

Gunter, T. (2016). Physician death by suicide: Problems seeking stakeholder solutions. *Indiana University Robert H. McKinney School of Law Research Paper*, (2016-23).

Gupta, P., & Srivastava, S. (2021). Work–life conflict and burnout among working women: A mediated moderated model of support and resilience. *International Journal of Organizational Analysis (2005), 29*(3), 629-655.

Győrffy, Z., Dweik, D., & Girasek, E. (2016). Workload, mental health and burnout indicators among female physicians. *Human Resources for Health, 14*(12), 12-12. https://doi.org/10.1186/s12960-016-0108-9

Hall, L. H., Johnson, J., Heyhoe, J., Watt, I., Anderson, K., & O'Connor, D. B. (2018). Strategies to improve general practitioner well-being: Findings from a focus group study. *Family Practice, 35*(4), 511-516. https://doi.org/10.1093/fampra/cmx130

Hamidi, M. S., Bohman, B., Sandborg, C., Smith-Coggins, R., de Vries, P., Albert, M. S., ... & Trockel, M. T. (2018). Estimating institutional physician turnover attributable to self-reported burnout and associated financial burden: A case study. *BMC health services research*, *18*(1), 851.

Han, S., Shanafelt, T. D., Sinsky, C. A., Awad, K. M., Dyrbye, L. N., Fiscus, L. C., Trockel, M., & Goh, J. (2019). Estimating the attributable cost of physician burnout in the united states. *Annals of Internal Medicine, 170*(11), 784-790. https://doi.org/10.7326/M18-1422

Hardy, P., Costemale-Lacoste, J., Trichard, C., Butlen-Ducuing, F., Devouge, I., Cerboneschi, V., Jacob, E., Buferne, R., Benyamina, A., Cantero, A., Gravier, V., Ghanem, T., Guérin, A., Meidinger, A., Baleyte, J., Pelissolo, A., & Corruble, E. (2020). Comparison of burnout, anxiety and depressive syndromes in hospital psychiatrists and other physicians:

Results from the ESTEM study. *Psychiatry Research, 284*, 112662-112662. https://doi.org/10.1016/j.psychres.2019.112662

Harrison, H., Birks, M., Franklin, R., & Mills, J. (2017). Case study research: Foundations and methodological orientations. *Forum, Qualitative Social Research, 18*(1) https://doi.org/10.17169/fqs-18.1.2655

Hasan, T. F., Turnbull, M. T., Vatz, K. A., Robinson, M. T., Mauricio, E. A., & Freeman, W. D. (2019). Burnout and attrition: Expanding the gender gap in neurology? *Neurology*, *93*(23), 1002–1008. https://doi.org/10.1212/WNL.0000000000008583

Haste, A., Lambert, M., Sharp, L., Thomson, R., & Sowden, S. (2020). Patient experiences of the urgent cancer referral pathway—Can the NHS do better? Semi-structured interviews with patients with upper gastrointestinal cancer. Health expectations: *An International Journal of Public Participation in Health Care and Health Policy, 23*(6), 1512-1522. https://doi.org/10.1111/hex.13136

Health Resources & Services Administration. (n.d.). *Health Professional Shortage Area (HPSA).* https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation#mups

Heinemann, L. V., & Heinemann, T. (2017). Burnout research: Emergence and scientific investigation of a contested diagnosis. *Sage Open, 7*(1), 2158244017697154.

Hennink, & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine.*, *292*. https://doi.org/10.1016/j.socscimed.2021.114523

Hennink, Kaiser, B. N., & Marconi, V. C. (2017). Code Saturation Versus Meaning Saturation. *Qualitative Health Research.*, *27*(4), 591–608. https://doi.org/10.1177/1049732316665344

Henrique, D. B., & Godinho Filho, M. (2020). A systematic literature review of empirical research in lean and six sigma in healthcare. *Total Quality Management & Business Excellence, 31*(3-4), 429-449. https://doi.org/10.1080/14783363.2018.1429259

Ho, A., & Dascalu, I. (2021). Relational solidarity and COVID-19: An ethical approach to disrupt the global health disparity pathway. *Global Bioethics, 32*(1), 34-50. https://doi.org/10.1080/11287462.2021.1898090

Hoff, T., Carabetta, S., & Collinson, G. E. (2019). Satisfaction, burnout, and turnover among Nurse Practitioners and Physician Assistants: A review of the empirical literature. *Medical Care Research & Review*, *76*(1), 3–31. https://doi.org/10.1177/1077558717730157

Hoffman, S. (2019). Physician burnout calls for legal intervention. *Hastings Center Report*, *49*(6), 8-9.

Hofman, J., Garrod, B., Stewart, K., Stepanek, M., & Van Belle, J. (2018). Workplace wellbeing charter: Analysis of take-up and impact. *Rand Health quarterly, 7*(2).

Holmgreen, L., Tirone, V., Gerhart, J., & Hobfoll, S. E. (2017). Conservation of resources theory. *The handbook of stress and health: A Guide to Research and practice*, 443-457.

Honavar, S. G. (2018). Brace up or burnout. *Indian Journal of Ophthalmology*, *66*(4), 489-490. https://doi.org/10.4103/ijo.IJO_424_18

Hordge-Freeman, E. (2018). Bringing your whole self to research: The power of the researcher's body, emotions, and identities in ethnography. *International Journal of Qualitative Methods, 17*(1), 160940691880886. https://doi.org/10.1177/1609406918808862

Huang, C. S., & Simha, A. (2018). The mediating role of burnout in the relationships between perceived fit, leader-member exchange, psychological illness, and job performance. *International Journal of Stress Management*, *25*(S1), 26.

Huang, H., & Liaw, S. (2018). An analysis of learners' intentions toward virtual reality learning based on constructivist and technology acceptance approaches. *International Review of Research in Open and Distance Learning, 19*(1).

Huecker, M. R., & Zink, B. (2020). Stoicism defeats burnout. *Academic Emergency Medicine, 27*(12), 1374-1376. https://doi.org/10.1111/acem.13967

Ilic, I. M., Arandjelovic, M. Z., Jovanovic, J. M., & Nesic, M. M. (2017). Relationships of work-related psychosocial risks, stress, individual factors, and burnout - questionnaire survey among emergency physicians and nurses. *Medycyna Pracy, 68*(2), 167-178.

Iorga, M., Socolov, V., Muraru, D., Dirtu, C., Soponaru, C., Ilea, C., & Socolov, D. (2017). Factors influencing burnout syndrome in obstetrics and gynecology physicians. *BioMed Research International, 2017*, 9318534-10. https://doi.org/10.1155/2017/9318534

Irudayadason, N. A. (2021). Pragmatism and belief. In *Pragmatism, Spirituality, and Society* (pp. 17-26). Palgrave Macmillan, Singapore.

Jaegers, L. A., Matthieu, M. M., Vaughn, M. G., Werth, P., Katz, I. M., & Ahmad, S. O. (2019). Posttraumatic stress disorder and job burnout among jail officers. *Journal of Occupational and Environmental Medicine, 61*(6), 505.

Jain, N. (2021). Survey versus interviews: Comparing data collection tools for exploratory research. *The Qualitative Report, 26*(2), 541-554. http://dx.doi.org.ezproxy.liberty.edu/10.46743/2160-3715/2021.4492

James, T. G., Sullivan, M. K., Dumeny, L., Lindsey, K., Cheong, J., & Nicolette, G. (2020). Health insurance literacy and health service utilization among college students. *Journal of American College Health, 68*(2), 200-206.

Jeelani, R., Lieberman, D., & Chen, S. H. (2019). Is patient advocacy the solution to physician burnout? In Seminars in reproductive medicine (Vol. 37, No. 05/06, pp. 246-250). *Thieme Medical Publishers.*

Jenkins, E. K., Slemon, A., Haines-Saah, R. J., & Oliffe, J. (2018). A guide to multisite qualitative analysis. *Qualitative Health Research*, *28*(12), 1969–1977. https://doi.org/10.1177/1049732318786703

Jerome, G. (2020). Physician burnout, interrupted. *The New England Journal of Medicine, 382*(26), 2485-2487. https://doi.org/10.1056/NEJMp2003149

Joanna, H., Bryn, G., Katherine, S., Martin, S., & Janna Van, B. (2018). Workplace well-being charter: Analysis of take-up and impact. *Rand Health Quarterly, 7*(2)*,* 6-6.

Job, T., & Blok, V. (2021). A critical hermeneutic reflection on the paradigm-level assumptions underlying responsible innovation. *Synthese, 198*, 4635-4666. https://doi.org/10.1007/s11229-018-1839-z

Johns Hopkins University (JHU) (2022). Coronavirus COVID-19 (2019-nCoV) Data Repository: Johns Hopkins University Center for Systems Science and Engineering. *Bulletin-Association of Canadian Map Libraries and Archives (ACMLA)*, (164), 47-51.

Kao, D. P., Trinkley, K. E., & Lin, C. (2020). Heart failure management innovation enabled by electronic health records. JACC. *Heart Failure, 8*(3)*,* 223-233. https://doi.org/10.1016/j.jchf.2019.09.008

Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social Sciences*, *8*(9), 255.

Kearney, C., Dunne, P., & Wales, W. J. (2020). Entrepreneurial orientation and burnout among healthcare professionals. *Journal of Health Organization and Management.* doi:10.1108/JHOM-09-2019-0259

Keller, T., & Alsdorf, K. L. (2012). *Every good endeavor: Connecting your work to God's work.* New York: Penguin Books.

Kerlin, M. P., McPeake, J., & Mikkelsen, M. E. (2020). Burnout and joy in the profession of critical care medicine. *Critical Care (London, England), 24*(1), 98-98. doi:10.1186/s13054-020-2784-z.

Kim, H., Kim, J., Choe, K., Kwak, Y., & Song, J. (2018). Mediating effects of workplace violence on the relationships between emotional labor and burnout among clinical nurses. *Journal of Advanced Nursing, 74*(10), 2331-2339. https://doi.org/10.1111/jan.13731.

Kim, L. Y., Rose, D. E., Ganz, D. A., Giannitrapani, K. F., Yano, E. M., Rubenstein, L. V., & Stockdale, S. E. (2020). Elements of a healthy work environment associated with lower primary care nurse burnout. *Nursing Outlook*, *68*(1), 14–25. https://doi.org/10.1016/j.outlook.2019.06.018

Kirch, D. G., & Petelle, K. (2017). Addressing the physician shortage: The peril of ignoring demography. *JAMA: The Journal of the American Medical Association, 317*(19), 1947-1948. https://doi.org/10.1001/jama.2017.2714

Kocalevent, R., Pinnschmidt, H., Selch, S., Nehls, S., Meyer, J., Boczor, S., ... & van den Bussche, H. (2020). Burnout is associated with work-family conflict and gratification crisis among German resident physicians. *BMC medical education, 20*(1), 1-8.

Korstjens, I., & Moser, A. (2017). Series: Practical guidance to qualitative research. Part 2: Context, research questions, and designs. *European Journal of General Practice*, *23*(1), 274-279.

Kosan, Z., Aras, A., Cayir, Y., & Calikoglu, E. O. (2019). Burnout among family physicians in Turkey: A comparison of two different primary care systems. *Nigerian Journal of Clinical Practice*, *22*(8), 1063–1069. https://doi.org/10.4103/njcp.njcp_355_17

Koutsimani, P., Montgomery, A., & Georganta, K. (2019). The relationship between burnout, depression, and anxiety: A systematic review and meta-analysis. *Frontiers in Psychology*, *10*, 284.

Kroth, P. J., Morioka-Douglas, N., Veres, S., Babbott, S., Poplau, S., Qeadan, F., Parshall, C., Corrigan, K., & Linzer, M. (2019). Association of electronic health record design and use factors with clinician stress and burnout. *JAMA Network Open*, *2*(8), e199609. https://doi.org/10.1001/jamanetworkopen.2019.9609

Krugman, P. (2020). *Arguing with zombies: Economics, politics, and the fight for a better future.* WW Norton & Company.

Krupat, E., & Hall, J. A. (2021). Warding off a tyranny of reliability and validity. Patient *Education and Counseling, 104*(9), 2378-2381. https://doi.org/10.1016/j.pec.2021.02.005

Kruse, C. S., Mileski, M., Dray, G., Johnson, Z., Shaw, C., & Shirodkar, H. (2022). Physician burnout and the electronic health record leading up to and during the first year of COVID-19: Systematic review. *Journal of Medical Internet Research, 24*(3), e36200-e36200. https://doi.org/10.2196/36200

Kuhn, C. M., & Flanagan, E. M. (2017). Self-care as a professional imperative: Physician burnout, depression, and suicide. *Canadian Journal of Anesthesia, 64*(2), 158-168. https://doi.org/10.1007/s12630-016-0781-0

Kung, A., Cheung, T., Knox, M., Willard-Grace, R., Halpern, J., Olayiwola, J. N., & Gottlieb, L. (2019). Capacity to address social needs affects primary care clinician burnout. Annals of *Family Medicine, 17*(6), 487-494. https://doi.org/10.1370/afm.2470

Lacy, B. E., & Chan, J. L. (2018). Physician burnout: The hidden health care crisis. *Clinical Gastroenterology and Hepatology, 16*(3), 311-317.

Lal, A., Erondu, N. A., Heymann, D. L., Gitahi, G., & Yates, R. (2021). Fragmented health systems in COVID-19: Rectifying the misalignment between global health security and universal health coverage. *Lancet (London, England)*, *397*(10268), 61–67.

Lanka, E., Lanka, S., Rostron, A., & Singh, P. (2021). Why we need qualitative research in management studies. *Revista De Administração Contemporânea, 25*(2), 1-7.

Larsen, D., Chu, J. T., Yu, L., Chang, Y., Donelan, K., & Palamara, K. (2021). Correlating burnout and well-being in a multisite study of internal medicine residents and faculty. *Journal of General Internal Medicine*, *36*, 1422-1426.

Larson, A. R., Jagsi, R., Moeschler, S. M., & Silver, J. K. (2020). Association of compensation and educational debt with burnout and perceived impact of debt on women physicians' career and lifestyle choices. *Health Equity, 4*(1), 565-570.

Lech, S., O'Sullivan, J. L., Wellmann, L., Supplieth, J., Döpfmer, S., Gellert, P., Kuhlmey, A., & Nordheim, J. (2021). Recruiting general practitioners and patients with dementia into a cluster randomized controlled trial: Strategies, barriers, and facilitators. *BMC Medical Research Methodology, 21*(1), 61. https://doi.org/10.1186/s12874-021-01253-6

Lee, R. T., Seo, B., Hladkyj, S., Lovell, B. L., & Schwartzmann, L. (2013). Correlates of physician burnout across regions and specialties: A meta-analysis. *Human Resources for Health, 11*(1), 48. doi:10.1186/1478-4491-11-48

Leedy, P. D., & Ormrod, J. E. (2019). *Practical research: Planning and design* (Twelfth ed.). Pearson.

Leigh, R., Van Aarsen, K., Foxcroft, L., & Lim, R. (2020). P012: Does physician burnout differ between urban and rural emergency medicine physicians? A comparison using the Maslach Burnout Inventory tool. *Canadian Journal of Emergency Medicine (CJEM)*, *22*(S1), S68-S69.

Leiter, M. P., & Maslach, C. (2016). Latent burnout profiles: A new approach to understanding the burnout experience. *Burnout Research*, *3*(4), 89-100.

Lheureux, F., Truchot, D., & Borteyrou, X. (2016). Suicidal tendency, physical health problems and addictive behaviours among general practitioners: Their relationship with burnout. *Work and Stress, 30*(2), 173-192.

Lin, M., Battaglioli, N., Melamed, M., Mott, S. E., Chung, A. S., & Robinson, D. W. (2019a). High prevalence of burnout among US emergency medicine residents: Results from the 2017 national emergency medicine wellness survey. *Annals of Emergency Medicine, 74*(5), 682-690. https://doi.org/10.1016/j.annemergmed.2019.01.037

Lin, Y., Chen, C., Chu, W., Hu, S., Liou, Y., Yang, Y., & Tsan, Y. (2019b). Modifiable risk factors related to burnout levels in the medical workplace in Taiwan: Cross-sectional study. *BMJ Open, 9*(11), e032779.

Lincoln, Y. S., & Guba, E. G. (2013). *The constructivist credo.* Left Coast Press, Inc

Linneberg, M. S., & Korsgaard, S. (2019). Coding qualitative data: A synthesis guiding the novice. *Qualitative Research Journal, 19*(3), 259-270. https://doi.org/10.1108/QRJ-12-2018-0012

Linzer, M., Manwell, L. B., Williams, E. S., Bobula, J. A., Brown, R. L., Varkey, A. B., Man, B., McMurray, J. E., Maguire, A., Horner-Ibler, B., Schwartz, M. D., & for the MEMO (Minimizing Error, Maximizing Outcome) Investigators. (2009). Working conditions in primary care: Physician reactions and care quality. *Annals of Internal Medicine, 151*(1), 28. https://doi.org/10.1059/0003-4819-151-1-200907070-00006

Linzer, M., Sinsky, C. A., Poplau, S., Brown, R., Williams, E. (2017). The healthy workplace investigators & healthy workplace investigators. Joy in medical practice: Clinician satisfaction in the healthy workplace trial. *Health Affairs, 36*(10), 1808-1814. http://doi.org/10.1377/hlthaff.2017.0790

Lipuma, S. H., & Robichaud, A. L. (2020). Deliver us from injustice: Reforming the U.S. healthcare system. *Journal of Bioethical Inquiry, 17*(2), 257-270. https://doi.org/10.1007/s11673-020-09961-2

Lobe, B., Morgan, D., & Hoffman, K. A. (2020). Qualitative data collection in an era of social distancing. *International Journal of Qualitative Methods, 19,* 160940692093787. https://doi.org/10.1177/1609406920937875

Loerbroks, A., Glaser, J., Vu-Eickmann, P., & Angerer, P. (2017). Physician burnout, work engagement, and the quality of patient care. *Occupational Medicine*, *67*(5), 356-362.

Long, K. M., McDermott, F., & Meadows, G. N. (2018). Being pragmatic about healthcare complexity: Our experiences applying complexity theory and pragmatism to health services research. *BMC medicine*, *16*(1), 1-9.

Lou, S. S., Liu, H., Warner, B. C., Harford, D., Lu, C., & Kannampallil, T. (2022). Predicting physician burnout using clinical activity logs: Model performance and lessons learned. *Journal of Biomedical Informatics, 127*, 104015-104015.

Lovell, B. (2018). What do we know about coaching in medical education? A literature review. *Medical Education, 52*(4), 376-390. https://doi.org/10.1111/medu.13482

Lu, D., Dresden, S., McCloskey, C., Branzetti, J., & Gisondi, M. (2015). Impact of burnout on self-reported patient care among emergency physicians. *The Western Journal of Emergency Medicine, 16*(7), 996-1001. https://doi.org/10.5811/westjem.2015.9.27945

MacArthur, K., Royer, E., & Hawkins, D. (2018). Addressing the enduring primary care physician shortage in the United States: The direct and indirect effects of gender on the medical specialty decision-making process. *International Journal of Medical Students.*, *6*(3), 91–97. https://doi.org/10.5195/ijms.2018.296

Mackean, T., Shakespeare, M., & Fisher, M. (2022). Indigenous and non-indigenous theories of wellbeing and their suitability for wellbeing policy. *International Journal of Environmental Research and Public Health, 19*(18), 11693. https://doi.org/10.3390/ijerph191811693

Maher, C., Hadfield, M., Hutchings, M., & de Eyto, A. (2018). Ensuring rigor in qualitative data analysis: A design research approach to coding combining NVivo with traditional

material methods. *International Journal of Qualitative Methods.* https://doi.org/10.1177/1609406918786362

Mahmoud, N. N., & Rothenberger, D. (2019). From burnout to well-being: A focus on resilience. *Clinics in Colon and Rectal Surgery, 32*(6), 415-423.

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: guided by information power. *Qualitative health research*, *26*(13), 1753-1760.

Mangory, K. Y., Ali, L. Y., Rø, K. I., & Tyssen, R. (2021). Effect of burnout among physicians on observed adverse patient outcomes: a literature review. *BMC Health Services Research*, *21*(1), 1-8.

Marhefka, S., Lockhart, E., & Turner, D. (2020). Achieve research continuity during social distancing by rapidly implementing individual and group videoconferencing with participants: Key considerations, best practices, and protocols. *AIDS and Behavior, 24*(7), 1983-1989. https://doi.org/10.1007/s10461-020-02837-x

Marjoua, Y., & Bozic, K. J. (2012). A brief history of quality movement in US healthcare. *Current Reviews in Musculoskeletal Medicine, 5*(4), 265-273. https://doi.org/10.1007/s12178-012-9137-8

Maslach, C. (2018). Job burnout in professional and economic contexts. *Diversity in unity: Perspectives from psychology and behavioral sciences*, 11-15.

Maslach, C., Jackson, S. E., Leiter, M. P., Schaufeli, W. B., & Schwab, R. L. (1986). *Maslach burnout inventory* (Vol. 21, pp. 3463-3464). Palo Alto, CA: Consulting Psychologists press.

Maslach, C., Schaufeli, W. B., Leiter, M. P., & Afd Sociale-, g. e. o. p. (2001). Job burnout. *Annual Review of Psychology, 52*(1), 397-422. https://doi.org/10.1146/annurev.psych.52.1.397

Maurer, R. (2017). Health care's staffing crisis: Can H.R. find the cure for what ails the U.S.'s health care systems? *H.R. Magazine, 62*(9), pp. 40-45. Retrieved from http://bi.galegroup.com.ezproxy.liberty.edu/global/article/GALE%7CA515795624?u=vic_liberty

Mauthner, N. S. (2019). Toward a posthumanist ethics of qualitative research in a big data era. *American Behavioral Scientist, 63*(6), 669–698. https://doi.org/10.1177/0002764218792701

Mayo Clinic (2021). *physician-well-being/mayos-approach-physician-well-being/mayo-clinic-well-being-index*. *Centers and programs*. https://www.mayo.edu/research/centers-programs/program

McFarland, D. C., Hlubocky, F., & Riba, M. (2019a). Update on addressing mental health and burnout in physicians: What is the role of psychiatry? *Current Psychiatry Reports, 21*(11), 1-8 https://doi.org/10.1007/s11920-019-1100-6

McFarland, D. C., Hlubocky, F., Susaimanickam, B., O'Hanlon, R., & Riba, M. (2019b). Addressing depression, burnout, and suicide in oncology physicians. *American Society of Clinical Oncology Educational Book*, *39*, 590-598.

McGrath, C., Palmgren, P. J., Liljedahl, M., Sahlgrenska akademin, Institute of Medicine, Göteborgs Universitet, Gothenburg University, Sahlgrenska Academy, & Institutionen för medicin. (2019). Twelve tips for conducting qualitative research interviews. *Medical Teacher, 41*(9), 1002-1006. https://doi.org/10.1080/0142159X.2018.149714

Medscape. (2019). Medscape National Physician Burnout & Depression Report 2019. https://www.medscape.com/slideshow/2019-lifestyle-burnout-depression-6011056#2

Mikalauskas, A., Benetis, R., Širvinskas, E., Andrejaitienė, J., Kinduris, Š., Macas, A., & Padaiga, Ž. (2018). Burnout among anesthetists and intensive care physicians. *Open Medicine (Warsaw, Poland), 13*(1), 105-112. https://doi.org/10.1515/med-2018-0017

Mirkovic, D., & Bianchi, R. (2019;2018;). Physician burnout: Let's avoid unsubstantiated claims. *Nature Reviews. Clinical Oncology, 16*(2), 136-136. https://doi.org/10.1038/s41571-018-0150-8

Moazzami, B., Razavi-Khorasani, N., Dooghaie Moghadam, A., Farokhi, E., & Rezaei, N. (2020). COVID-19 and telemedicine: Immediate action required for maintaining healthcare providers well-being. *Journal of Clinical Virology, 126*, 104345-104345. https://doi.org/10.1016/j.jcv.2020.104345

Mofidi, F., & Akbari, H. (2020). Intelligent buildings: An overview. *Energy and Buildings, 223*, 110192. https://doi.org/10.1016/j.enbuild.2020.110192

Montgomery, A., Panagopoulou, E., Esmail, A., Richards, T., & Maslach, C. (2019). Burnout in healthcare: The case for organizational change. *BMJ (Online), 366*, l4774-l4774. https://doi.org/10.1136/bmj.l4774

Moore, A., Grime, J., Campbell, P., & Richardson, J. (2013). Troubling stoicism: Sociocultural influences and applications to health and illness behavior. *Health*, *17*(2), 159-173.

Morgan, P. (2019). Predicted shortages of physicians might even disappear if we fully account for P.A.s and N.P.s. *Journal of the American Academy of Physician Assistants, 32*(10), 51-53. https://doi.org/10.1097/01.JAA.0000580580.89002.f4.

Morgan, S. J., Pullon, S. R. H., Macdonald, L. M., McKinlay, E. M., & Gray, B. V. (2017). Case study observational research: A framework for conducting case study research where observation data are the focus. *Qualitative Health Research*, *27*(7), 1060–1068. https://doi.org/10.1177/1049732316649160

Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection, and analysis. *The European Journal of General Practice, 24*(1), 9–18. https://doi.org/10.1080/13814788.2017.1375091

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 healthcare professionals: A call for action. *Critical Care Medicine, 44*(7), 1414-1421. https://doi.org/10.1097/CCM.0000000000001885

Moukaddam, N., Parks, K., Le, H., Khawaja, L., & Shah, A. A. (2020). Burnout and suicide among physicians during times of stress. *Psychiatric Annals, 50*(12), 536-541.

Mull, C. C., & Bowman, W. R. (2020). A call to restore your calling: Self-care of the emergency physician in the face of life-changing stress: Part 5 of 6: Physician burnout. *Pediatric Emergency Care, 36*(1), e25-e29. https://doi.org/10.1097/PEC.0000000000002025

Mull, C. C., Thompson, A. D., Rappaport, D. I., Gartner, J. C., & Bowman, W. R. (2019). A call to restore your calling: Self-care of the emergency physician in the face of life-changing Stress–Part 3 of 6: Physician illness and impairment. *Pediatric Emergency Care, 35*(8), 585-588. https://doi.org/10.1097/PEC.0000000000001896

Mureithi, L., Burnett, J. M., Bertscher, A., & English, R. (2018). Emergence of three general practitioner contracting-in models in South Africa: A qualitative multi-case

study. *International Journal for Equity in Health, 17*(1), 107-107. https://doi.org/10.1186/s12939-018-0830-0

Nassar, A. K., Reid, S., Kahnamoui, K., Tuma, F., Waheed, A., & McConnell, M. (2020). Burnout among academic clinicians as it correlates with the workload and demographic variables. *Behavioral Sciences*, *10*(6), 94.

Natow, R. S. (2020). The use of triangulation in qualitative studies employing elite interviews. *Qualitative Research, 20*(2), 160–173. https://doi.org/10.1177/1468794119830077

Noble, H., & Heale, R. (2019). Triangulation in research, with examples. *Evidence-Based Nursing, 22*(3), 67. http://dx.doi.org.ezproxy.liberty.edu/10.1136/ebnurs-2019-103145

Nunn, K., & Isaacs, D. (2019). Burnout. *Journal of Pediatrics and Child Health, 55*(1), 5-6. https://doi.org/10.1111/jpc.14331

Odibo, A. O., & Acharya, G. (2018). External validity in perinatal research. *Acta Obstetricia Et Gynecologica Scandinavica, 97*(4), 424-428. https://doi.org/10.1111/aogs.13268

O'Dowd, E., O'Connor, P., Lydon, S., Mongan, O., Connolly, F., Diskin, C., McLoughlin, A., Rabbitt, L., McVicker, L., Reid-McDermott, B., & Byrne, D. (2018). Stress, coping, and psychological resilience among physicians. *BMC Health Services Research, 18*(1), 730. https://doi.org/10.1186/s12913-018-3541-8

OECD (2019). *Health at a Glance 2019: OECD Indicators*, OECD Publishing, Paris.

Ofei-Dodoo, S., Cleland-Leighton, A., Nilsen, K., Cloward, J. L., & Casey, E. (2020). Impact of a mindfulness-based, workplace group yoga intervention on burnout, self-care, and compassion in health care professionals: A pilot study. *Journal of Occupational and Environmental Medicine, 62*(8), 581-587. https://doi.org/10.1097/JOM.0000000000001892

Ofei-Dodoo, S., Loo-Gross, C., & Kellerman, R. (2021). Burnout, depression, anxiety, and stress among family physicians in Kansas responding to the COVID-19 pandemic. *Journal of the American Board of Family Medicine, 34*(3), 522-530.

Ogrezeanu, A., Purcărea, A. A., & Ogrezeanu, A. (2017). Thematic content analysis applied for user-friendly software applications. *Niculescu Publishing House*

Oliffe, J. L., Kelly, M. T., Gonzalez Montaner, G., & Yu Ko, W. F. (2021). Zoom interviews: Benefits and concessions. *International Journal of Qualitative Methods, 20*, 160940692110535. https://doi.org/10.1177/16094069211053522

Olson, K. D. (2017). Physician Burnout—A leading indicator of health system performance? *Mayo Clinic Proceedings, 92*(11), 1608-1611. https://doi.org/10.1016/j.mayocp.2017.09.008

Olson, K., Sinsky, C., Rinne, S. T., Long, T., Vender, R., Mukherjee, S., Bennick, M., & Linzer, M. (2019). A cross-sectional survey of workplace stressors associated with physician burnout measured by the Mini-Z and the Maslach Burnout Inventory. *Stress & Health: Journal of the International Society for the Investigation of Stress*, *35*(2), 157–175. https://doi.org/10.1002/smi.2849

Orr, E. R., Ballantyne, M., Gonzalez, A., & Jack, S. M. (2020). Visual elicitation: Methods for enhancing the quality and depth of interview data in applied qualitative health research. *Advances in Nursing Science, 43*(3), 202-213. https://doi.org/10.1097/ANS.0000000000000321

Østebø, M. T., Cogburn, M. D., & Mandani, A. S. (2018). The silencing of political context in health research in Ethiopia: Why it should be a concern. *Health Policy and Planning, 33*(2), 258-270. https://doi.org/10.1093/heapol/czx150

Panagioti, M., Panagopoulou, E., Bower, P., Lewith, G., Kontopantelis, E., Chew-Graham, C., ... & Esmail, A. (2017). Controlled interventions to reduce burnout in physicians: A systematic review and meta-analysis. *JAMA internal medicine*, *177*(2), 195-205.

Papadimos, T. (2004). Stoicism, the physician, and care of medical outliers. *BMC Medical Ethics.*, *5*(1). https://doi.org/10.1186/1472-6939-5-8

Papanicolas, I., Woskie, L. R., & Jha, A. K. (2018). Health care spending in the United States and other high-income countries. *Jama*, *319*(10), 1024-1039.

Paparini, S., Papoutsi, C., Murdoch, J., Green, J., Petticrew, M., Greenhalgh, T., & Shaw, S. E. (2021). Evaluating complex interventions in context: Systematic, meta-narrative review of case study approaches. *BMC Medical Research Methodology, 21*(1), 225-225. https://doi.org/10.1186/s12874-021-01418-3

Pastores, S. M., Kvetan, V., Coopersmith, C. M., Farmer, J. C., Sessler, C., Christman, J. W., D'Agostino, R., Diaz-Gomez, J., Gregg, S. R., Khan, R. A., Kapu, A. N., Masur, H., Mehta, G., Moore, J., Oropello, J. M., Price, K., & Academic Leaders in Critical Care Medicine (ALCCM) Task Force of the Society of the Critical Care Medicine. (2019). Workforce, workload, and burnout among intensivists and advanced practice providers: A narrative review. *Critical Care Medicine, 47*(4), 550-557. https://doi.org/10.1097/CCM.0000000000003637

Patel, R. S., Bachu, R., Adikey, A., Malik, M., & Shah, M. (2018). Factors related to physician burnout and its consequences: A review. *Behavioral Sciences*, *8*(11), 98.

Patel, R. S., Sekhri, S., Bhimanadham, N. N., Imran, S., & Hossain, S. (2019). A review on strategies to manage physician burnout. *Curēus (Palo Alto, CA), 11*(6), e4805-e4805. https://doi.org/10.7759/cureus.4805

Patel, R., Hunt, S., Schmidt, R. N., Dayama, N., & Brooks, T. (2022). Healthcare workforce burnout: Innovative solutions pre/during and post covid-19 pandemic. *Journal of Business and Behavioral Sciences, 34*(1), 54-65.

Patricio, L., Sangiorgi, D., Mahr, D., Čaić, M., Kalantari, S., & Sundar, S. (2020). Leveraging service design for healthcare transformation: Toward people-centered, integrated, and technology-enabled healthcare systems. *Journal of Service Management, 31*(5), 889-909.

Pavlov, A. (2016). On Physician Burnout: A Serious Problem. *So. Calif. Clinicians J.*, *10*(9).

Peikes, D. N., Swankoski, K., Hoag, S. D., Duda, N., Coopersmith, J., Taylor, E. F., ... & Sessums, L. L. (2019). The effects of a primary care transformation initiative on primary care physician burnout and workplace experience. *Journal of General Internal Medicine, 34*(1), 49-57.

Penwell-Waines, L., Ward, W., Kirkpatrick, H., Smith, P., & Abouljoud, M. (2018). Perspectives on healthcare provider well-being: Looking back, moving forward. *Journal of Clinical Psychology in Medical Settings, 25*(3), 295-304.

Perry, K. M., Stacy, S. E., & Pepper, C. M. (2019). Masculine gender-related personality traits and acquired capability for suicide. *Death Studies,* 1-8. https://doi.org/10.1080/07481187.2019.1699206

Perumalswami, C. R., Takenoshita, S., Tanabe, A., Kanda, R., Hiraike, H., Okinaga, H., Jagsi, R., & Nomura, K. (2020). Workplace resources, mentorship, and burnout in early career physician-scientists: A cross-sectional study in Japan. *BMC Medical Education, 20*(1), 178-178. https://doi.org/10.1186/s12909-020-02072-x

Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future, 8*(1), 133-141.

Pope, C., & Mays, N. (2020;2019;). *Qualitative Research in Health Care* (Fourth ed.). Wiley-Blackwell

Prince George's County Legislative Branch, MD. (2021). *PowerPoint Presentation (pgccouncil.us)*. (2021, September). https://pgccouncil.us/DocumentCenter/View/5802/Rand-Study-PPT

Rabatin, J., Williams, E., Baier Manwell, L., Schwartz, M. D., Brown, R. L., & Linzer, M. (2016). Predictors and outcomes of burnout in primary care physicians. *Journal of Primary Care & Community Health*, *7*(1), 41-43.

Rahi, S., Feras M I Alnaser, & Ghani, M. A. (2019). Designing survey research: Recommendation for questionnaire development, calculating sample size, and selecting research paradigms. *Economic and Social Development: Book of Proceedings,* 1157-1169.

Rahm, A. K., Ladd, I., Burnett-Hartman, A. N., Epstein, M. M., Lowery, J. T., Lu, C. Y., Pawloski, P. A., Sharaf, R. N., Liang, S., & Hunter, J. E. (2019). The healthcare systems research network (HCSRN) as an environment for dissemination and implementation research: A case study of developing a multi-site research study in precision medicine. *EGEMS (Washington, DC), 7*(1), 16. https://doi.org/10.5334/egems.283

Rathert, C., Williams, E. S., & Linhart, H. (2018). Evidence for the quadruple aim: A systematic review of the literature on physician burnout and patient outcomes. *Medical Care, 56*

Ratnapalan, S., & Lang, D. (2020). Health care organizations as complex adaptive systems. *The Health Care Manager, 39*(1), 18-23. doi:10.1097/HCM.0000000000000284

Ridder, H. (2017). The theory contribution of case study research designs. *Business Research (Göttingen), 10*(2), 281-305. https://doi.org/10.1007/s40685-017-0045-z

Roberts, K., Dowell, A., & Jing-Bao Nie. (2019). Attempting rigour and replicability in thematic analysis of qualitative research data; a case study of codebook development. BMC *Medical Research Methodology, 19*. http://dx.doi.org/10.1186/s12874-019-0707-y

Robson, C., & McCartan, K. (2016). *Real world research: A resource for users of social research methods in applied settings, (4th. ed).* John Wiley & Sons.

Rodrigues, H., Cobucci, R., × Antônio Oliveira, Cabral, J. V., Medeiros, L., Gurgel, K., Souza, T., & Gonçalves, A.K. (2018). Burnout syndrome among medical residents: A systematic review and meta-analysis. *PLoS One, 13*(11). http://dx.doi.org.ezproxy.liberty.edu/10.1371/journal.pone.0206840

Rose, J., & Johnson, C. W. (2020). Contextualizing reliability and validity in qualitative research: Toward more rigorous and trustworthy qualitative social science in leisure research. *Journal of Leisure Research, 51*(4), 432-451. https://doi.org/10.1080/00222216.2020.1722042

Rosenberg, A. R. (2018). Seeking professional resilience. *Pediatrics*, *141*(3).

Rosenthal, E. E. (2018). An American sickness: How health care became big business and how you can take it back. *Missouri Medicine, 115*(2), 128-129.

Rotenstein, L. S., Sinsky, C., & Cassel, C. K. (2021). How to measure progress in addressing physician well-being: Beyond burnout. *JAMA: The Journal of the American Medical Association, 326*(21), 2129-2130. https://doi.org/10.1001/jama.2021.20175

Rotenstein, L. S., Torre, M., Ramos, M. A., Rosales, R. C., Guille, C., Sen, S., & Mata, D. A. (2018). Prevalence of burnout among physicians: A systematic review. *Jama, 320*(11), 1131-1150. https://doi.org/10.1001/JAMA.2018.12777

Rovner, J. (2019). The complicated, political, expensive, seemingly eternal US healthcare debate explained. *BMJ (Online), 367*, l5885. https://doi.org/10.1136/bmj.l5885

Rozario, D. (2019). Burnout, resilience, and moral injury: How the wicked problems of health care defy solutions, yet require innovative strategies in the modern era. *Canadian Journal of Surgery, 62*(4), E6-E8. https://doi.org/10.1503/cjs.002819

Ruisoto, P., Ramírez, M. R., García, P. A., Paladines-Costa, B., Vaca, S. L., & Clemente-Suárez, V. J. (2021). Social support mediates the effect of burnout on health in health care professionals. *Frontiers in Psychology*, *11*, 3867.

Runfola, A., Perna, A., Baraldi, E., & Gregori, G. L. (2017). The use of qualitative case studies in top business and management journals: A quantitative analysis of recent patterns. *European Management Journal, 35*(1), 116-127. https://doi.org/10.1016/j.emj.2016.04.001

Salmon, P., & Young, B. (2018). Qualitative methods can test and challenge what we think we know about clinical communication – If they are not too constrained by methodological 'brands.' *Patient Education and Counseling, 101*(9), 1515-1517. https://doi.org/10.1016/j.pec.2018.07.005

Salvador, Pétala Tuani Candido de Oliveira, Alves, K. Y. A., Rodrigues, Cláudia Cristiane Filgueira Martins, & Oliveira, L. V. e. (2020). Online data collection strategies used in qualitative research of the health field: A scoping review. *Revista Gaúcha De Enfermagem, 41* https://doi.org/10.1590/1983-1447.2020.20190297

Sawatsky, A. P., Ratelle, J. T., & Beckman, T. J. (2019). Qualitative research methods in medical education. *Anesthesiology, 131*(1), 14-22. https://doi.org/10.1097/ALN.0000000000002728

Schaufeli, W. B. (2017). Burnout: A short socio-cultural history. *Burnout, fatigue, exhaustion* (pp. 105-127). Palgrave Macmillan, Cham.

Schenker, M., & Costa, D. H. D. (2019). Advances and challenges of health care of the elderly population with chronic diseases in Primary Health Care. *Ciencia & Saude Coletiva*, *24*, 1369-1380.

Schwartz, S. P., Adair, K. C., Bae, J., Rehder, K. J., Shanafelt, T. D., Profit, J., & Sexton, J. B. (2019). Work-life balance behaviors cluster in work settings and relate to burnout and safety culture: A cross-sectional survey analysis. *BMJ Quality & Safety, 28*(2), 142. doi:http://dx.doi.org.ezproxy.liberty.edu/10.1136/bmjqs-2018-007933

Schwenk, T. L., & Gold, K. J. (2018). Physician Burnout—A serious symptom, but of what? *JAMA: The Journal of the American Medical Association, 320*(11), 1109-1110.

Seidler, A., Thinschmidt, M., Deckert, S., Then, F., Hegewald, J., Nieuwenhuijsen, K., & Riedel-Heller, S. G. (2014). The role of psychosocial working conditions on burnout and its core component emotional exhaustion–a systematic review. *Journal of Occupational Medicine and Toxicology, 9*(1), 1-13.

Sequeira, L., Almilaji, K., Strudwick, G., Jankowicz, D., & Tajirian, T. (2021). EHR "SWAT" teams: A physician engagement initiative to improve electronic health record (EHR) experiences and mitigate possible causes of EHR-related burnout. *JAMIA Open, 4*(2), ooab018. https://doi.org/10.1093/jamiaopen/ooab018

Shanafelt, T. D., & Noseworthy, J. H. (2017). Executive leadership and physician well-being: Nine organizational strategies to promote engagement and reduce burnout. *Mayo Clinic Proceedings, 92*(1), 129 https://doi.org/10.1016/j.mayocp.2016.10.004

Shanafelt, T. D., Dyrbye, L. N., & West, C. P. (2017a). Addressing physician Burnout—The way forward. *Obstetrical & Gynecological Survey, 72*(8), 462-463. https://doi.org/10.1097/01.ogx.0000521915.77729.ed

Shanafelt, T. D., Gorringe, G., Menaker, R., Storz, K. A., Reeves, D., Buskirk, S. J., Sloan, J. A., & Swensen, S. J. (2015). Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clinic Proceedings*, *90*(4), 432–440. https://doi.org/10.1016/j.mayocp.2015.01.012

Shanafelt, T. D., Schein, E., Minor, L. B., Trockel, M., Schein, P., & Kirch, D. (2019). Healing the professional culture of medicine. *Mayo Clinic Proceedings, 94*(8), 1556-1566.

Shanafelt, T., Goh, J., & Sinsky, C. (2017b). The Business Case for Investing in Physician Well-being. *JAMA Internal Medicine*, *177*(12), 1826–1832. https://doi.org/10.1001/jamainternmed.2017.4340

Shannonhouse, L. R., Barden, S. M., & McDonald, C. P. (2017). Mixed methodology in group research: Lessons learned. *The Journal for Specialists in Group Work, 42*(1), 87-107. https://doi.org/10.1080/01933922.2016.1264521

Sharma, M. S., & Bansal, D. (2017). Constructivism as a paradigm for teaching and learning. *International Journal of Physical Education, Sports, and Health*, *4*(5), 209-212.

Shea, T. (2022). The potential for qualitative triangulation to mitigate investigative negligence. *Police Practice & Research, 23*(2), 195-211. https://doi.org/10.1080/15614263.2021.1915786

Shelley, B. (2019). Understanding physician burnout syndrome: Antithesis of physician well-being. *Archives of Medicine and Health Sciences, 7*(1), 1-10. https://doi.org/10.4103/AMHS.amhs_75_19

Shi, L. & Singh, D. A. (2017) *Essential of the U.S. Health Care System (4th ed)*. Burlington, Massachusetts: Jones and Bartlett Learning.

Shi, L., Singh, D. A., & Shi, L. (2019). *Essentials of the U.S. health care system (Fifth;5; ed.)*. Jones & Bartlett Learning.

Shi, Leiyu, and Douglas A. Singh. *Essentials of the US health care system*. Jones & Bartlett Learning, 2022.

Sierk, A., Daniels, J. K., Manthey, A., Kok, J. G., Leemans, A., Gaebler, M., . . . Walter, H. (2018). White matter network alterations in patients with depersonalization/derealization disorder. *Journal of Psychiatry & Neuroscience, 43*(5), 347-357. https://doi.org/10.1503/jpn.170110

Sies, H., Berndt, C., & Jones, D. P. (2017). Oxidative stress. *Annual Review of Biochemistry, 86*(1), 715-748. https://doi.org/10.1146/Annu rev-biochem-061516-045037

Simon, M. K., & Goes, J. (2018). *Dissertation and scholarly research: Recipes for success. 2018 edition.* Dissertation, LLC.

Skillman, M., Cross-Barnet, C., Singer, R. F., Ruiz, S., Rotondo, C., Ahn, R., Snyder, L. P., Colligan, E. M., Giuriceo, K., & Moiduddin, A. (2017;2016;). Physician engagement strategies in care coordination: Findings from the centers for Medicare & Medicaid services' health care innovation awards program. *Health Services Research, 52*(1), 291-312. https://doi.org/10.1111/1475-6773.12622

Slavin, S. (2019). Preventing physician burnout: Satisfaction or something more? *Israel Journal of Health Policy Research, 8*(1), 34-34. https://doi.org/10.1186/s13584-019-0303-y

Small, M. L. (2021). What is “Qualitative” in qualitative research? Why the answer does not matter but the question is important. *Qualitative Sociology, 44*(4), 567-574. https://doi.org/10.1007/s11133-021-09501-3

Smit, A., Swartz, L., Bantjes, J., Roomaney, R., & Coetzee, B. (2021). Moving beyond text-and-talk in qualitative health research: Methodological considerations of using multiple media for data collection. *Qualitative Health Research, 31*(3), 600–614. https://doi.org/10.1177/1049732320976556

Snelson, C., Yang, D., & Temple, T. (2021). Addressing the challenges of online video analysis in qualitative studies: A worked example from computational thinking research. *The Qualitative Report, 26*(6), 1974-1988. http://dx.doi.org/10.46743/2160-3715/2021.4734

Sookhak, F., Bazrafshan, M. R., Ahmadi, A., & Kavi, E. (2019). Nurses’ Level of Awareness and Observance of Patients’ Rights. *Journal of Client-Centered Nursing Care*, *5*(3), 167–174. https://doi.org/10.32598/JCCNC.5.3.167

Sowah, D., Fan, X., Dennett, L., Hagtvedt, R., & Straube, S. (2017). Vitamin D levels and deficiency with different occupations: A systematic review. *BMC Public Health, 17*(1), 519-519. https://doi.org/10.1186/s12889-017-4436-z

Spano, G., Giannico, V., Elia, M., Bosco, A., Lafortezza, R., & Sanesi, G. (2020). Human health-environment interaction science: An emerging research paradigm. *The Science of the Total Environment*, *704*, 135358. https://doi.org/10.1016/j.scitotenv.2019.135358

Squiers, J. J., Lobdell, K. W., Fann, J. I., & DiMaio, J. M. (2017). Physician burnout: Are we treating the symptoms instead of the disease? *The Annals of Thoracic Surgery*, *104*(4), 1117–1122. https://doi.org/10.1016/j.athoracsur.2017.08.009

Stehman, C., Testo, Z., Gershaw, R., & Kellogg, A. (2019). This article corrects: “Burnout, drop out, suicide: Physician loss in emergency medicine, part 1”. *The Western Journal of Emergency Medicine, 20*(5). https://doi.org/10.5811/westjem.2019.8.44927

Sterling, R., Rinne, S. T., Reddy, A., Moldestad, M., Kaboli, P., Helfrich, C. D., Henrikson, N. B., Nelson, K. M., Kaminetzky, C., & Wong, E. S. (2021;2022;). Identifying and prioritizing workplace climate predictors of burnout among VHA primary care physicians. *Journal of General Internal Medicine: JGIM, 37*(1), 87-94. https://doi.org/10.1007/s11606-021-07006-x

Stewart, M. T., Reed, S., Reese, J., Galligan, M. M., & Mahan, J. D. (2019). Conceptual models for understanding physician burnout, professional fulfillment, and well-being. *Current Problems in Pediatric and Adolescent Health Care, 49*(11), 100658. https://doi.org/10.1016/j.cppeds.2019.100658

Stone, P. W. (2017). Determining value in the U.S. healthcare system. (Health policy and politics). *Nursing Economics, 35*(3), 142.

Sturmberg, J. P., & Bircher, J. (2019). Better and fulfilling healthcare at lower costs: The need to manage health systems as complex adaptive systems. *F1000Research*, *8*, 789. https://doi.org/10.12688/f1000research.19414.1

Swensen, S., Kabcenell, A., & Shanafelt, T. (2016). Physician-organization collaboration reduces physician burnout and promotes engagement: the Mayo Clinic experience. *Journal of Healthcare Management*, *61*(2), 105-127. https://doi.org/10.1097/00115514-201603000-00008

Szabo, A., Allen, J., Stephens, C., & Alpass, F. (2019). Longitudinal analysis of the relationship between purposes of internet use and well-being among older adults. *The Gerontologist*, *59*(1), 58-68. https://doi.org/10.1093/geront/gny036

Szarko, A. J., Houmanfar, R. A., Smith, G. S., Jacobs, N. N., Smith, B. M., Assemi, K., Piasecki, M., & Baker, T. K. (2022). Impact of acceptance and commitment training on psychological flexibility and burnout in medical education. *Journal of Contextual Behavioral Science, 23*, 190-199. https://doi.org/10.1016/j.jcbs.2022.02.004

Tawfik, D. S., Profit, J., Morgenthaler, T. I., Satele, D. V., Sinsky, C. A., Dyrbye, L. N., Tutty, M. A., West, C. P., & Shanafelt, T. D. (2018). Physician burnout, well-being, and work unit safety grades in relationship to reported medical errors. *Mayo Clinic Proceedings*, *93*(11), 1571–1580. https://doi.org/10.1016/j.mayocp.2018.05.014

Tawfik, D. S., Scheid, A., Profit, J., Shanafelt, T., Trockel, M., Adair, K. C., Sexton, J. B., & Ioannidis, J. P. A. (2019). Evidence relating health care provider burnout and quality of care: A systematic review and meta-analysis. *Annals of Internal Medicine*, *171*(8), 555–567. https://doi.org/10.7326/M19-1152

Teichert, L. (2020;2021). iPhone for data collection: Distraction in a low-technology home. *Qualitative Research Journal, 21*(2), 148-165.

Thimmapuram, J. R., Grim, R., Bell, T., Benenson, R., Lavallee, M., Modi, M., Noll, D., & Salter, R. (2019). Factors influencing work-life balance in physicians and advance practice clinicians and the effect of heartfulness meditation conference on burnout. *Global Advances in Health and Medicine*, *8*, 2164956118821056. https://doi.org/10.1177/2164956118821056

Thomas, Ripp, J. A., & West, C. P. (2018). Charter on physician well-being. *JAMA : The Journal of the American Medical Association., 319*(15). https://doi.org/10.1001/jama.2018.1331

Thorne, S. (2020). The great saturation debate: What the "S word" means and doesn't mean in qualitative research reporting. *Canadian Journal of Nursing Research, 52*(1), 3-5. https://doi.org/10.1177/0844562119898554

Thurairajah, K. (2019). Uncloaking the researcher: Boundaries in qualitative research. *Qualitative Sociology Review, 15*(1), 132-147. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Funcloaking-researcher-boundaries-qualitative%2Fdocview%2F2280836399%2Fse-2%3Faccountid%3D12085

Tomaszewski, L. E., Zarestky, J., & Gonzalez, E. (2020). Planning qualitative research: Design and decision making for new researchers. *International Journal of Qualitative Methods.* https://doi.org/10.1177/1609406920967174'med.2019.08.034

Twining, P., Heller, R. S., Nussbaum, M., & Tsai, C. (2017). Some guidance on conducting and reporting qualitative studies. *Computers and Education, 106*, A1-A9. https://doi.org/10.1016/j.compedu.2016.12.002

Twis, M. K., Miller, V. J., Cronley, C., & Fields, N. (2020). Collecting qualitative data through mobile applications: A multiple case study report. *Journal of Technology in Human Services, 38*(1), 38-53. https://doi.org/10.1080/15228835.2019.1599766

Valeras, A. S. (2020). Healthcare provider burn-out: A war with uncertainty. *Families Systems & Health, 38*(1), 96-98. https://doi.org/10.1037/fsh0000473

Valerio, M. A., Rodriguez, N., Winkler, P., Lopez, J., Dennison, M., Liang, Y., & Turner, B. J. (2016). Comparing two sampling methods to engage hard-to-reach communities in

research priority setting. *BMC Medical Research Methodology, 16*(1), 146-146. https://doi.org/10.1186/s12874-016-0242-z

VanderWeele, T. J., Trudel-Fitzgerald, C., Allin, P., Farrelly, C., Fletcher, G., Frederick, D. E., Hall, J., Helliwell, J. F., Kim, E. S., Lauinger, W. A., Lee, M. T., Lyubomirsky, S., Margolis, S., McNeely, E., Messer, N., Tay, L., Viswanath, V., Węziak-Białowolska, D., & Kubzansky, L. D. (2020). Current recommendations on the selection of measures for well-being. *Preventive Medicine, 133*, 106004-106004. https://doi.org/10.1016/j.ypmed.2020.106004

Verhaegh, S. (2020). The American reception of logical positivism: First encounters, 1929-1932. *HOPOS: The Journal of the International Society for the History of Philosophy of Science*, *10*(1), 106–142.

Verkuilen, J., Bianchi, R., Schonfeld, I. S., & Laurent, E. (2021). Burnout–depression overlap: Exploratory structural equation modeling bifactor analysis and network analysis. *Assessment*, *28*(6), 1583-1600. https://doi.org/10.1177/1073191120911095

Vogel, L. (2018). Medical leaders urge system change to reduce physician burnout. *Canadian Medical Association Journal, 190*(44), E1312-E1313. https://doi.org/10.1503/cmaj.109-5684

Weatherford, J., & Maitra, D. (2019). How Online Students Approach Bracketing: A Survey Research Study. *Educational Research: Theory and Practice*, *30*(2), 91-102.

Wells, C. M., & Klocko, B. A. (2018). Principal well-being and resilience: Mindfulness as a means to that end. *NASSP Bulletin*, *102*(2), 161-173.

West, C. P., Dyrbye, L. N., & Shanafelt, T. D. (2018). Physician burnout: Contributors, consequences, and solutions. *Journal of Internal Medicine, 283*(6), 516-529. https://doi.org/10.1111/joim.12752

Whitehead, D., & Whitehead, L. (2020). Data collection and sampling in qualitative research. *Nursing and Midwifery Research Methods and Appraisal for Evidence-Based Practice*. 6th Edition. Sydney: Elsevier.

Wiederhold, B. K., Cipresso, P., Pizzioli, D., Wiederhold, M., & Riva, G. (2018). Intervention for physician burnout: A systematic review. *Open Medicine (Warsaw, Poland)*, *13*, 253–263. https://doi.org/10.1515/med-2018-0039

Williams, B. J., Rudinsky, S. L., & Matteucci, M. J. (2020a). Burnout in military emergency medicine resident physicians: A cross-sectional study with comparisons to other physician groups. *Military Medicine*, *185*(3–4), e331–e334. https://doi.org/10.1093/milmed/usz236

Williams, E. S., Rathert, C., & Buttigieg, S. C. (2020b). The personal and professional consequences of physician burnout: A systematic review of the literature. *Medical Care Research and Review*, *77*(5), 371-386. https://doi.org/10.1177/1077558719856787

Williams, M., & Moser, T. (2019). The art of coding and thematic exploration in qualitative research. *International Management Review, 15*(1), 45-55,71-72. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fart-coding-thematic-exploration-qualitative%2Fdocview%2F2210886420%2Fse-2%3Faccountid%3D12085

Winston, H., & Fage, B. (2019). Resilience, resistance: A commentary on the historical origins of resilience and wellness initiatives. *Psychiatric Services (Washington, D.C.), 70*(8), 737-739. https://doi.org/10.1176/appi.ps.201800477

Woo, T., Ho, R., Tang, A., & Tam, W. (2020). Global prevalence of burnout symptoms among nurses: A systematic review and meta-analysis. *Journal of Psychiatric Research*, *123*, 9–20. https://doi.org/10.1016/j.jpsychires.2019.12.015

World Health Organization (WHO). (2010). Geneva. Classification of health workforce statistics. www.who.int/hrh/statistics/workforce statistics. Retrieved 2020-04-13.

World Health Organization (WHO). (2019). Burnout an "occupational phenomenon": International Classification of Diseases. *World Health Organization, Geneva, Switzerland*.

Wright, J. M., Smith, A. M., & Catanzaro, J. N. (2020). EP News: Quality improvement and outcomes: Physician burnout. *Heart Rhythm*, *17*(7), 1221. https://doi.org/10.1016/j.hrthm.2020.04.035

Wurm, W., Vogel, K., Holl, A., Ebner, C., Bayer, D., Mörkl, S., Szilagyi, I., Hotter, E., Kapfhammer, H., & Hofmann, P. (2016). Depression-burnout overlap in physicians. *PloS One, 11*(3), e0149913-e0149913. https://doi.org/10.1371/journal.pone.0149913

Xierali, I. M., & Nivet, M. A. (2018). The racial and ethnic composition and distribution of primary care physicians. *Journal of Health Care for the Poor and Underserved, 29*(1), 556-570. https://doi.org/10.1353/hpu.2018.0036

Xu, W., & Zammit, K. (2020). Applying thematic analysis to education: A hybrid approach to interpreting data in practitioner research. *International Journal of Qualitative Methods*. https://doi.org/10.1177/1609406

Yanchus, N. J., Carameli, K. A., Ramsel, D., & Osatuke, K. (2020). How to make a job more than just a paycheck: Understanding physician disengagement. *Health Care Management Review*, *45*(3), 245–254. https://doi.org/10.1097/HMR.0000000000000218

Yang, N., Lu, J., & Ye, J. (2018). A novel framework based on the improved Job Demands-Resources (JD-R) model to understand the impact of job characteristics on job burnout from the view of emotion regulation theory. *Psychiatria Danubina*, *30*(1), 26–34. https://doi.org/10.24869/psyd.2018.26

Yates, S. W. (2020). Physician stress and burnout. *The American Journal of Medicine, 133*(2), 160-164. https://doi.org/10.1016/j.amjmed.2019.08.034

Yin, R. K. (2009). *Case study research: Design and Methods* (Fourth ed.). Los Angeles, Calif: Sage Publications.

Yin, R. K. (2013). Validity and generalization in future case study evaluations. *Evaluation, 19*(3), 321-332.

Yin, R. K. (2016). *Qualitative research from start to finish* (Second ed.). New York: Guilford Press.

Yin, R. K. (2017). *Case study research and applications: Design and methods*. Sage publications.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (Sixth ed.). Thousand Oaks, California: SAGE Publications.

Yuguero, O., Forné, C., Esquerda, M., Pifarré, J., Abadías, M. J., & Viñas, J. (2017). Empathy and burnout of emergency professionals of a health region: A cross-sectional study. *Medicine*, *96*(37), e8030. https://doi.org/10.1097/MD.0000000000008030

Zhang, X., Lin, D., Pforsich, H., & Lin, V. W. (2020). Physician workforce in the United States of America: Forecasting nationwide shortages. *Human Resources for Health*, *18*(1), 1–9. https://doi.org/10.1186/s12960-020-0448-3

Zhou, A. Y., Panagioti, M., Esmail, A., Agius, R., Van Tongeren, M., & Bower, P. (2020). Factors associated with burnout and stress in trainee physicians: A systematic review and meta-analysis. *JAMA Network Open*, *3*(8), e2013761. https://doi.org/10.1001/jamanetworkopen.2020.13761

Zoom Video Communications, 2021. *Zoom for education*. Retrieved from https://zoom.us/education

Appendix A: Interview Guide/Questions

Below are the guidelines for before, during, and after the interviews:

Before the interview

2 Schedule convenient dates, times, and locations for the telephone or video interviews

3 Send the Consent Form to prospective participants

4 Before the interviews, provide participants with a link to complete the demographic information survey

5 When the consent form is received, the researcher calls participants to ensure they do not have any concerns and discuss. The researcher will also discuss the confidentiality statement to ensure that participants understand. The researcher will also confirm that participants would have access to the necessary communication device.

6 The researcher will call to remind participants of the date and time for the interview two days prior to the interview date and provide them with a unique code for the interview. The researcher will remind participants that on the interview date, to introduce themselves by the personal code to ensure their anonymity.

7 Notify participants that the interview may be up to one hour long via Skype, Webex, Zoom, or Facetime, and the researcher will make a voice recording and take notes. Remind participants that. Termination of participation may occur without participants' consent should any falsification of required credentials occur. You can decide to be a part of this study or not. You can also choose to withdraw from the study without any penalty or loss of benefits. The results of the research study may be published, but your identity will remain

On the interview day

Welcome participants and introduce myself and the research topic.

Introduction and pleasantries.

My name is Fatima Queen. Tell the participant to introduce themselves by their assigned code name only for their privacy. Thank you for agreeing to participate in this interview to support my Doctor of Business Administration (Healthcare Management) research. My research topic is Understanding workplace conditions contributing to physician burnout prevalence in Maryland. Before we continue, I want you to know that I will be asking you a series of questions related to the physician burnout phenomenon and, particularly, the role of workplace conditions.

Inform participants of my intention to record the interview and assure them that all responses are strictly confidential, hence, the assigned personal code. The researcher will notify the participant of the intention to keep all interview transcripts and resulting analysis in a secure location according to the dissertation guidelines of Liberty University. The researcher will then ask the participant for permission to record the interview. The researcher will turn on the tape recorder (electronic storage device), notate the participant's coded name, date, time, and location, and commence the interview. The researcher will remind participants that they can withdraw at any time if they no longer want to participate. The researcher will start by giving some background on the current physician burnout literature.

The researcher will inform the participant that the interview is for research and data collection for the study and that the importance of participation is far-reaching and beneficial to burnout research.

8. The researcher will begin the interview.

Interview Questions

1. What are your medical qualifications?
2. How long have you been working as a physician, physician assistant or nurse practitioner?
3. How long have you been working in your current clinic/hospital?
4. What other clinic/hospital have you worked in before your current job?
5. Before the onset of the Covid-19 pandemic, what did you understand as burnout? What meaning do you ascribe to burnout?
6. Before the Covid-19 pandemic, describe a low point when you felt burned out.
7. What specific factor made it a low point?
8. Which part of your job duties or functions makes your job stressful?
9. How does your organization/employer contribute to this feeling of stress?
10. How do you think your organization/employer can minimize this stress?
11. Which part of your job duties or functions brings you the least satisfaction?
12. Which part of your job do you wish that you did not have to do?
13. How does your organization/employer contribute to this undesirable job function?
14. What part of your physical environment makes your job less desirable?
15. How does your organization/employer contribute to the unsatisfactory environment?
16. How do you think your organization/employer can minimize the impact of an unsatisfactory environment?
17. Are there other conditions that contribute to how you feel?
18. Describe the psycho-social workplace conditions contributing to your burnout.
19. How does your organization/employer contribute to this undesirable condition?
20. Describe workplace economic measures or conditions such as reduced or eliminated

resources and services for physicians and/or patients for cost-cutting purposes, contributing to your burnout condition.

21. How does your employer contribute to this undesirable condition?
22. How do you think your organization/employer can minimize this stress?
23. Describe the organizational policies that are causing you to experience burnout.
24. How do these policies impact you?
25. How do you think this aspect could be improved to minimize burnout?
26. Describe a high point when you felt less burned out. What were the factors responsible for this experience?
27. What type of symptoms have you been experiencing due to feeling burned out?
28. Describe ways in which you deal or cope with burnout.
29. Describe the physical workplace conditions contributing to these conditions.
30. Describe the psycho-social workplace conditions contributing to how you feel
31. Would you say that the Covid-19 pandemic has significantly contributed to the feeling of stress or burnout?
32. Do you have any additional workplace information you consider necessary which were not addressed by the interview questions?

The researcher will conclude the interview, thank the participant, and prepare to review the transcripts for analysis.

7 After the interview

1. Review the critical points with participants and ask for feedback from the participant.
2. Ask for permission for future contact.
3. After transcribing the interviews, send a transcribed copy to participants for review

and verification as a member-checking process.

4. Give participants five working days to review the transcripts for accuracy, make any necessary corrections, and return them to the researcher.

If the participant does not return the transcripts to the researcher after one week, the researcher's transcript stands. If participants make changes, the researcher will amend the transcript to include the changes in the data.

Appendix B: Title of Appendix B

Appendix B: Well-Being Index Academic License Agreement

IMPORTANT LEGAL NOTICE TO ALL USERS: CAREFULLY READ THE FOLLOWING LEGAL AGREEMENT BEFORE YOU START USING THE PAPER/PENCIL VERSION OF THE WELL-BEING INDEX QUESTIONS OR SCORING TOOLS (THE "INDEX").

If you are an academic user, you must register and agree to the terms below to use the Well-Being Index. For the purpose of this agreement, academic users are defined as Medical Schools, Residency/Fellowship Programs using the Index to monitor well-being of medical students, residents, and fellows, or Academic Medical Centers using the Well-Being Index for IRB Approved Research Studies.

If you are a commercial user, using the Well-Being Index for any other purpose (such as to____ evaluate or monitor the well-being of your staff) you must contact MedEd Web Solutions (http://www.mededwebs.com), to obtain a commercial license to use the Well-Being Index.

This Academic License Agreement (this “Agreement”) is a binding agreement between MedEd Web Solutions ("MEWS") and you (where "you" means (and "your" refers to) any individual or legal entity that exercises the permissions granted by this License).

BY CLICKING THE ACCEPT BUTTON IN THE LICENSE AGREEMENT WINDOW, YOU CONSENT TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS AGREEMENT.

IF YOU DO NOT AGREE TO ALL OF THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT USE THE QUESTIONS, SCORING TOOLS OR ONLINE

APPLICATION. ABSENT YOUR AGREEMENT TO THE TERMS BELOW, YOU HAVE NO RIGHTS WHATSOEVER TO HOLD OR USE THE INDEX.

AFTER CLICKING THE ACCEPT BUTTON IN THE LICENSE AGREEMENT WINDOW, YOU HAVE THE RIGHT TO USE THE INDEX IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS AGREEMENT.

Well-Being Index Terms of Use:

LICENSE GRANT. MEWS hereby grants you a limited non-exclusive license to download, reproduce, translate, display or otherwise use the paper/pencil version(s) of the Advanced Practice Provider, Employee, Medical Student, Nurse, Physician, and Resident/Fellow Well-Being Index questions and/or scoring tools solely for the purpose of monitoring medical student, resident and fellow well-being or IRB approved research conducted by you at your institution and subject to all the terms and conditions of this agreement. The Index can be used as part of an electronic survey but cannot be used to create an interactive tool that gives feedback, results, or resources to survey takers. In use of this License, you agree not to alter, modify, or change The Index questions in any way.

1. NO REDISTRIBUTION. The Index remains the property MEWS. You shall not publish, distribute, or otherwise transfer or make available the Index to any other party.

NO COMMERCIAL USE. Any use of the Index for commercial purposes in any form is strictly prohibited. This includes, but is not limited to, use of the Index to evaluate or monitor the well-being of your staff/employees. It also includes use in fee-for-service core laboratories or to provide services to, or commercially sponsored research for, a third party for a fee or other compensation. If you wish to use the Index for any commercial purposes, you must execute a separate license agreement with MEWS. To request a license to use the Index for commercial

purposes, please contact:

MedEd Web Solutions

Attn: Well-Being Index

3014 Allegro Park Lane SW

Rochester, Minnesota 55902

Phone: (507) 289-2229

Email: hello@mededwebs.com

2. OWNERSHIP AND COPYRIGHT NOTICES. MEWS owns and shall at all times retain exclusive rights to all intellectual property in the Index. This License does not transfer, assign, or convey any intellectual property rights to you (*e.g.* , it does not transfer ownership of copyrights or trademarks). You agree not to remove or delete and shall retain in the Index and any modifications to the Index the copyright, trademark, or other notices that are provided with the Index.
3. PUBLICATION AND ATTRIBUTION. You have the right to publish, present, or share results of your work that makes use of the Index. If use of the Index leads to results that will be published, you agree that you will acknowledge MEWS and the Mayo Clinic as the provider of the Index.

NO CLINICAL USE. The Index is for academic use only and is not approved for clinical, diagnostic or treatment purposes. You agree that you shall not use the Index for clinical, diagnostic or treatment purposes, and that any such uses are expressly prohibited.

4. NO WARRANTIES; LIMITATION OF LIABILITY.

THE INDEX ISEXPERIMENTAL IN NATURE AND IS MADE AVAILABLE "AS IS" AND WITHOUT OBLIGATION BY MEWS TO PROVIDE ACCOMPANYING

SERVICES, UPDATES OR SUPPORT. ANY RISK ASSOCIATED WITH USE OF THE INDEX IS YOUR SOLE RISK.MEWS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, REGARDING THE INDEX.

MEWS EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES CONCERNING THE INDEX, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR

ANY PARTICULAR PURPOSE, PERFORMANCE, FREEDOM FROM THE RIGHTFUL CLAIM OF ANY THIRD PARTY BY WAY OF INFRINGEMENT OR THE LIKE, AND ANY WARRANTY THAT MIGHT OTHERWISE ARISE FROM COURSE OF DEALING OR USAGE OF TRADE.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, UNDER NO CIRCUMSTANCES, SHALL MEWS OR ITS AFFILIATES BE LIABLE TO YOU OR ANY OTHER PARTY FOR DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES OR RELATED EXPENSES WHICH MAY ARISE FROM THE USE OF THE INDEX, INCLUDING BUT NOT LIMITED TO THOSE RESULTING FROM ANY DEFECT IN THE INDEX OR SCORING TOOLS, LOSS, OR INACCURACY OF DATA OF ANY KIND, LOSS OF PROFITS, INTERRUPTION OF BUSINESS, CORRUPTION, DAMAGE OR LOSS OF DATA, FAILURE OF THE INDEX TO OPERATE WITH ANY OTHER PRODUCT, BUSINESS INTERRUPTION OR OTHERWISE, WHETHER IN CONTRACT, STRICT LIABILITY, TORT, INCLUDING, BUT NOT LIMITED TO, NEGLIGENCE.

INDEMNIFICATION. To the extent permitted by law, you shall indemnify, defend and hold harmless MEWS, its corporate affiliates, current or future directors, trustees, officers, faculty, medical and professional staff, employees, students and agents and their respective

successors, heirs and assigns (the "Indemnitees"), against any liability, damage, loss or expense (including reasonable attorney's fees and expenses of litigation) incurred by or imposed upon any of the Indemnitees in connection with any claims, suits, actions, demands or judgments arising from or connected with your use of the Index. MEWS and MEWS's Affiliates shall have no obligation to indemnify you hereunder. This indemnification obligation shall survive expiration or termination of this agreement.

GOVERNING LAW; Jurisdiction. This agreement shall be governed by the laws of the State of Minnesota, USA, excluding its choice-of-law principles. The application of the United Nations Convention on Contracts for the Sale of Goods is excluded. You hereby irrevocably consent to the exclusive personal jurisdiction of the Minnesota state and U.S. federal courts located in Olmsted County, Minnesota, USA for the resolution of all disputes and controversies arising under or relating to this agreement.

8. NON-USE OF NAME. Other than permitted under Section 5, you will not use for publicity, promotion or otherwise, any logo, name, trade name, service mark or trademark of MEWS or Mayo Clinic or its Affiliates, including, but not limited to, the terms "MAYO®," "MAYO Clinic®" and the triple shield MAYO logo, or any simulation, abbreviation, or adaptation of the same, or the name of any employee or agent of Mayo Clinic or its affiliates, without Mayo Clinic's prior, written, express consent. Mayo Clinic may withhold such consent in its absolute discretion. With regard to the use of any name or trademark of Mayo Clinic or its affiliates, all requests for approval pursuant to this section must be submitted to the MAYO Clinic Public Affairs Business Relations Group, at the following email address: PublicAffairsBR@MAYO.edu at least five (5) business days prior to the date on which a response is needed.

USE RECORDS AND COMPLIANCE REVIEW. You shall keep complete, accurate, and verifiable records at your principal place of business showing all use that you make of the Index and retain those records for a period of at least two years after your last use of the Index. You agree to make those records available for inspection and copying by MEWS or its authorized representatives during normal business hours and upon reasonable notice in order to confirm your compliance with the terms of this agreement, including the prohibition on commercial use of the Index.

9. ENTIRE AGREEMENT; SEVERABILITY; NO WAIVER. This Agreement is the entire agreement between you and MEWS and supersedes any other prior agreements, proposals, communications or advertising, oral or written, with respect to the Index or to subject matter of this agreement. You acknowledge that you have read this agreement, understand it and agree to be bound by its terms. If any provision of this agreement is found by a court of competent jurisdiction to be invalid, void, or unenforceable for any reason, in whole or in part, such provision will be more narrowly construed so that it becomes legal and enforceable, and the entire agreement will not fail on account thereof, and the balance of the agreement will continue in full force and effect to the maximum extent permitted by law or equity while preserving, to the fullest extent possible, its original intent. No waiver of any provision or condition herein shall be valid unless in writing and signed by you and an authorized representative of MEWS, provided that no waiver of any breach of any provisions of this agreement will constitute a waiver of any prior, concurrent or subsequent breach. MEWS's failure to insist upon or enforce strict performance of any provision of this agreement or any right shall not be construed as a waiver of any such provision or right.

10. MEWS Contact Information. Should you have any questions concerning this agreement,

or if you desire to contact MEWS for any reason, please contact *Alan De Keyrel,* at alan@mededwebs.com.