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# The Relationship Between Perceived Patient Safety Outcomes and General Practice Physician Burnout

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### Walden University

College of Management and Human Potential

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Walden University 2024

#### Abstract

### The Relationship Between Perceived Patient Safety Outcomes and General Practice Physician Burnout

by

Tiffany Evon Robinson

MS, Strayer University, 2009

BS, Columbia College, 2006

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Healthcare Administration

Walden University

May 2024

#### **Abstract**

The social research problem that prompted this study was that the healthcare field saw an increasing and ongoing problem with generalist physician burnout. When health care administrators can decrease physician turnover and burnout, patient quality increases; therefore, whether generalist physician burnout is partially contingent on suboptimal patient care was explored in this study. Researchers have not investigated if perceived quality outcomes contribute to physician burnout. This quantitative study aimed to analyze whether there is an association between perceived patient safety outcomes and burnout among physicians who practice as generalists is the purpose. The theoretical framework for this study was Herzberg's two-factor theory of motivation-hygiene. Herzberg described the two-factor theory as the differences between job satisfaction and dissatisfaction and how those factors affect each other. The research key question was whether a statistical correlation exists between perceived patient safety outcomes and generalist physician burnout. The specific research design included a correlational analysis of secondary data, using a Pearson correlation 2-tailed test to determine the relationship between perceived patient safety outcomes and generalist physician burnout. The results showed a positive significant correlation between patient safety and generalist physician burnout; the null hypothesis was accepted, and the alternative hypothesis was rejected. Implications for positive social change include raising awareness of generalist physician burnout rates and how to potentially reduce burnout through an emphasized focus on the quality of patient safety outcomes.

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#### Dedication

The dedication of this doctoral dissertation is to my son, Morgan Eugene Robinson, who is the best gift God has given me. I am so proud to be his mother. My son has Autism Spectrum on the high end of the spectrum and is very high functioning. He wanted to know what college would look like, so I enrolled in Walden University to show him that you can accomplish anything if you put your mind to it. My mother, Linda Gale Matthews-McKinney (Hinson), was a young teen mother with two children. Her parents said my brother and I would never amount to anything. My brother, Timothy Eugene Matthews, is 13 months older than I am. He and I received our Master's degrees a week apart in 2009 and surprised our mother. Now, my brother is a Colonel and is about to become a General in the Army, serving 28 years. He is a big inspiration, and I am so grateful to him.

In addition, look at me now: I am about to earn my doctoral degree and retire from the Army. My mother accomplishes her goals through my brother and me. She is a strong mother, and we instilled our strength in her. My grandmother, Erma Lee Smith, came from us and lived with her when my parents were young and married. Living with my grandmother always went above and beyond all four of us. My mother and father got married when they were pregnant with my brother. My father's mother, Erma, took my mother in and gave her a roof over her and my brother before having me 13 months later. All five of us knew life would be a struggle with many challenges. However, the love outweighed the struggle. In addition, my father, Clarence Eugene Matthews (deceased) I had told him I would become a doctor of something before my father passed last year.

My father teased me when I was in the third grade for making my first "D" on my report card. I told him last year, in April 2022, that one day, "D" would not be for him to call me a dummy, but people would call a doctor one day. On June 23, 2022, my father passed away, but he knew my goals and finally told me he was proud of me. God has a way of showing you lessons. My lifetime lessons became triumphs.

#### Acknowledgments

I want to acknowledge and thank my chair, Dr. Matt Frederiksen-England. He worked diligently throughout this process, giving me guidance and mentorship, and he never gave up on me. Dr. Matt pushed me to the limits of my abilities. He made sure I was going to master my task to complete my dissertation journey with his motivating words of encouragement. Dr. Albert Johnston Gale, my second committee member, asked the tough questions, knowing he knew I knew the answer, to ensure I would like to change my knowledge base and push me to be confident in my worth. Dr. Gale made me see in diverse ways how to focus on the purpose and direction of my study. Dr. Matt and Dr. Gale kept me in line, ensuring I was not biased in how I was thinking throughout this process. Dr. Leslie King, thank you for hearing my concerns and ensuring I stayed on the right path with this program.

I also have to acknowledge my family and friends who kept me on task: Morgan Robinson (son), Linda Hinson (mother), Erma Smith (grandmother), Timothy and Martrell Matthews (Brother and Sister-in-Law), Tatanisha Dale and Tanisha Richards (cousins), Dannye Davis (friend), Janet Horvath (manager), and my staff at Northside Hospital. Everyone understood that my son and school were there before vacation and during my time there. I am glad they all kept me grounded and thankful to them all.

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#### Section 1: Foundation of the Study and Literature Review

The topic of this study was determining the relationship between the independent variable of perceived patient safety outcomes and the dependent variable of generalist physician burnout. This study was needed because a positive work environment can affect positive social change regarding employment retention control and favorable patient safety. Retention control of generalist physicians is essential for social change because patients build relationships with their providers, which creates confidence in stakeholders for health care in the environment. Patient safety outcomes and patient occurrence constituents involve health care services and patient interventions. Patient safety is measured and constructed based on the number of errors, adverse cases, infections, wounds, and mortality that occur (Harris et al., 2020). Burnout in health care workers results from emotional exhaustion, depersonalization, and low personal achievement that reduces work efficiency (De Hert, 2020). I conducted this study to address practitioner burnout rates by emphasizing quality.

Section 1 includes information on perceived patient safety outcomes and generalist physician burnout. In this section, I describe the problem and purpose of the study as well as the research question and hypotheses. This section also includes a discussion of the nature of the study and the theory of job satisfaction and growth within an organization.

#### **Background**

Burnout remains a problem in health care, so in this study I examined if systemlevel enhancements reduced physician burnout and led to higher patient satisfaction. This study was necessary to make a positive change in organizations that needed to identify solutions to the problems of physician burnout and reduced patient satisfaction, safety, and quality. Hospitals investing in work environments have reduced burnout (Carthon et al., 2022). Although burnout leads to decreased patient safety, a gap in the literature exists regarding how patient safety influences generalist physician burnout. This study had potential implications for positive social change regarding employment retention control and favorable patient safety. One possible retention implication is striving to know the physician's requests with flexible modifications of their worktimes and enhanced benefits.

Jun et al. (2021) stated that burnout is commonly observed as an individual issue that continues to be a problem in health care organizations. Burnout affects organizational-related outcomes, such as patient safety, quality of service, organizational obligation, productivity, and patient satisfaction (Jun et al., 2021). Jun et al. suggested that determining whether leveraging the employment surroundings would minimize the adverse effects of health care burnout on patient safety should be studied. Improving the occupation setting might reduce burnout and patient mortality (Schlak et al., 2021). There is a significant relationship between physician burnout and adverse patient safety outcomes, and a literature review showed that the effects of burnout among physicians on observed adverse patient outcomes were an unsolved, ongoing problem (Kashan et al., 2021).

#### **Problem Statement**

Health care continues to have high rates of employee burnout, and exactly 32.0% of clinicians were engaged in their work (Willard-Grace et al., 2019). The problem this quantitative study addressed was determining the relationship between perceived patient safety outcomes and generalist physician burnout. The independent variable was perceived safety outcomes, and the dependent variable was generalist physician burnout. Cintia de Lima Garcia et al. (2019) claimed health care management is needed to help reduce burnout and focus more on patient safety, which could minimize burnout. The health care field has seen an increase in ongoing issues involving employee burnout and a reduction in patient safety. Increased burnout precedes reduced patient safety and turnover with retention (Garcia et al., 2019).

Near the end of 2021, exactly 63.0% of physicians described symbols of burnout, up from 38.0% in 2020 (American Medical Association [AMA], 2023). Large-scale alterations are required to address physician burnout as well as the overload of job schedules. The AMA stated that health care administration needs to produce a solution to prevent overwork, which affects patient care safety outcomes. Previous research has established that burnout leads to decreased patient safety and physician turnover (AMA, 2023), but a gap exists regarding how patient safety influences generalist physician burnout; therefore, in this study, I examined how perceived patient safety affected generalist physician burnout.

Motivational programs are recognized interventions to decrease burnout and enhance physicians' mental health (Bulcock, 2020). Aryankhesal et al. (2019) found that

having open conversations encourages health care professionals to see a health professional for their struggles. Regular check-ins with staff and patients ensure that everyone is mentally okay with their daily tasks (Aryankhesal et al., 2019). Focus group therapy that assists with work-life balance was an intervention shown to positively decrease burnout and improve mental health among the health care providers of the organization (Aryankhesal et al., 2019).

The outcomes of regression burnout by maintaining successful communication skills showed that the maximum interventions consumed, collaboration, participating plans, and psychological interventions were similar to increasing awareness of mental transparency and physician self-awareness to reduce burnout. Relaxing the mind through meditation decreases depression and fatigue (Aryankhesal et al., 2019). The long-term mental health of the burnout intervention consumed to reduce burnout has influenced and increased long-term improvements (Aryankhesal et al., 2019).

#### **Purpose**

The purpose of this quantitative study was to analyze if there was an association between perceived patient safety outcomes and generalist physician burnout. Patient safety outcomes are the independent variable, and generalist physician burnout is the dependent variable. I conducted this study to observe whether physicians' dissatisfaction with patient safety creates increased burnout. Most previous studies reviewed the connections between physicians' inadequate mental health and medium-to-high stages of burnout with noncompliant patient safety outcomes and medical errors; however, more

potential training is needed to control causality (Hall et al., 2019). In the current study, I explored whether physician burnout was related to suboptimal patient care and professional disorganization. Aryankhesal et al. (2019) stated that health care organizations are responsible for jointly improving these effects on burnout reduction and the corresponding factors, improving medical care's impact, and ensured preventable patient safety (Aryankhesal et al., 2019).

#### **Research Question and Hypotheses**

RQ: Is there a correlation between perceived patient safety outcomes and generalist physician burnout?

 $H_0$ : There is no statistically significant correlation between perceived patient safety outcomes and generalist physician burnout.

 $H_a$ : There is statistically significant correlation between perceived patient safety outcomes and generalist physician burnout.

#### **Theoretical Framework**

In this study, I used Herzberg's two-factor theory of motivation-hygiene as the theoretical framework. Herzberg (1974) described the two-factor theory as the differences between job satisfaction and dissatisfaction and how those factors affect each. According to Herzberg, motivators are factored in, and hygiene factors enhance employee motivation Kurt, S. (2022, October 17). In the theory, Herzberg categorized the factors necessary to stimulate professionals to complete high-quality work in satisfying environments and with productive job satisfaction. The motivating factors are achieving realization, appreciation, development opportunities, and promotions. Hygiene factors

included building connections with coworkers, the policies and procedures of the hospital environment, the area workstation, functioning environments, income, safekeeping, work-related conditions, and guidance of employees (Kurt, 2022).

The U.S. Surgeon General (2022) stated that job satisfaction is often generated from personal recognition, personal achievement, and the ability to grow within the organization, and exciting work, while dissatisfaction was often associated with the job context as well as factors, such as policy, enforcement of policies, and overall work products. Burnout physicians aligned the two-factor theory with the topic under study because job satisfaction is related to the variable of burnout, and job dissatisfaction is related to workplace factors (Kurt, 2022).

#### **Nature of the Study**

In this quantitative study, I conducted a correlation analysis using a Pearson correlation two-tailed to determine the relationship between perceived patient safety outcomes and generalist physician burnout. In this statistical test of comparators with the quantities of the strength of linear correlation between two variables, the null hypothesis of the two-tailed test states that the correlation is not a linear relation (Webb, 2023). The *t testing* is consumed as a hypothesis testing that the null hypothesis changes when the null hypothesis is true; the *t* value should equal zero since there is no signal. The *t* test can only be utilized when two groups are identified by associating the means of two groups and multiple pairwise comparisons using an ANOVA or post-hoc test (Bevans, 2023).

In this quantitative, observational study, I collected the data using the mediation analysis model (Hayes, 2023); some questions that the generalist physician burnout

survey, patient blaming, dealing with backlog at work, self-pacing, and treatment of some patients too impersonal. The direction of some of the survey questions taken for patient safety outcomes was does the position require great care and correct patient care diagnosis, many hours spent on an average pre-week on maintenance, and hours doing work on average.

Verhoef et al. (2021) stated that two hundred thirty-two practicing participants responded that 93.0% of general practices classified as having the potential to suffer after a minor mental health disorder, 94% as mild, 22% as severe, 72.7% as overtiredness, and 86.8% as having insignificant, 37.9% or critical 48.9% disconnection. Defining minor, mild, and severe: minor is a slight mental health disorder. Mild is limited to mental health, and severe is a problematic case of mental health. The other variable, the occupational variable burnout, is connected with patient safety outcomes in generalist physician burnout (Verhoef et al., 2021).

#### **Literature Search Strategy**

To justify that of the relationship between perceived patient safety outcome and generalist physician burnout was a current and relevant social problem for this study, I reviewed scholarly, peer-reviewed articles and other empirical literature that was published within the past 5 years. The resources for this study included the National Library of Medicine and the National Center for Biotechnology Information. To locate sources for this review, I used the following keyword search terms: *professional burnout, patient satisfaction, consistent negative relationships, burnout syndrome, emotional exhaustion,* and *patient safety.* In the PubMed database, I searched for articles published

between 2019 and 2023 with the keyword terms of *burnout consequences, health care professionals, patient safety, prevalence, impact, symptoms,* and *prevention*. The Medscape Physician Burnout and Depression Report 2023 survey, raw data with the codebook for this study, came from Mendeley, a cross-sectional survey performed among a sample of 700 general practitioners (Shen et al., 2022). A version of the Maslach Burnout Inventory and eligible original studies were identified from Ovid Embase, Ovid Medline, and Web of Science databases (Shen et al., 2022).

#### **Literature Review**

#### Burnout

In this study, I aimed to determine the relationship between patient safety outcomes and generalist physician burnout. Health care administration must be more engaged with the clinical and non-clinical staff, from the staff members at the front desk to the health care physicians caring for the patients. Ways of engagement include:

- Being an active listener.
- Giving good informative feedback to staff.
- Giving the staff space and peer-to-peer recognition.
- Managing staff recognition.

Carthon et al. (2022) stated that the health care environment has an overflowing workday, demanding pace, time pressures, and emotional intensity, so health care administration solutions should be developed that strive to build cohesiveness to prevent burnout in the organization.

Health care administrators realized that burnout remains a problem in health care, so it was examined if system-level developments in the work environment would reduce burnout and improve patient safety and satisfaction outcomes (Carthon et al., 2022). Although burnout among generalist physicians is now well recognized, more needs to be known about how to address the problem (Carthon et al., 2022). The effects of workload, environment, and life circumstances contribute to burnout (Western Governors University, 2019). A current review and meta-analysis of interventions to decrease burnout suggested that individual and organizational interventions could make a difference (Carthon et al., 2022). Carthon et al.'s (2022) results indicated that job dissatisfaction, poor quality of life, and associated adverse patient outcomes may cause burnout within the generalist physician (Carthon et al., 2022). Physicians were overwhelmed with administrative paperwork, which is causing a burden and is one of the top causes of physician burnout. The time-consuming nature of patient care and administration work can be devastating (Carbajal, 2023). The Medscape Physician Burnout and Depression Report 2023 survey collected responses from more than 9,100 physicians across 29 specialties between June and October 2022, and more than one third of respondents in all specialties care said they were burned out (Carbajal, 2023).

The literature on burnout considers exhaustion to incorporate burnout and, in particular, exposition of trauma (Trumello et al., 2020). Burnout is tiredness, annoyance, and depression, whereas precise exposition of trauma is an undesirable emotional state determined by anxiety and work-related trauma (Trumello et al., 2020). Trumello et al. (2020) stated that the nuances of health care burnout posed significant challenges during

the COVID-19 pandemic. Extraordinary stress, burnout, individual exposition of trauma, nervousness, and depression were detected among physicians working with COVID-19 patients (Trumello et al., 2020). Aljabri et al. (2022) stated that during the COVID-19 pandemic, the frontline health care workers' prevalent burnout level highlighted significant social and demographic elements and professional influences affecting burnout. Additionally, operational, and administrative skillfulness is essential to establishing policies and instruments to categorize and spontaneously report burnout indicators among health care employees and endorse health care employees' well-being (Aljabri et al., 2022).

Mangory et al. (2021) stated the effects of burnout among physicians and patient outcomes have decreased patient outcome satisfaction and clinician-rated adversative patient experience outcomes. Burnout, compared to depression, is moderately associated with experimental patient experience outcomes (Mangory et al., 2021). Their findings indicated that burnout was connected to higher patient mortality, failure to rescue, and extended patient stays.

Schlak et al. (2021) stated that the working environment reduces the effect of health care staff burnout on respective patient outcomes. Yellowlees and Rea (2022) found that the domains for implementing strategies to reduce burnout included workload, job demands, efficiency, resources, work meaning, culture and control values, control and flexibility, social support and community at work, and work-life integration. The areas for implementing barriers that would decrease burnout included capability, occupation demands, productivity, control values, manageability, and work-life combination

(Yellowlees & Rea, 2022). Organizations can intervene to inhibit burnout by counseling individuals as well as providing flexibility and social support at work and in society (Yellowlees & Rea, 2022).

#### The Effect of Job Dissatisfaction/Satisfaction on Patient Safety Outcomes

Because health system employee burnout remains a problem, All Medical Personnel (2019) studied whether leveraging the occupation environment would minimize the negative effect of burnout on patient safety outcomes. Over the years, more healthcare physicians have been satisfied with the work-life balance (All Medical Personnel, 2019). The major driving force of physicians' dissatisfaction is those factors related to the threat to physicians' autonomy, the capability to manage routine patient interactions, and the ability to provide high-quality care. In a survey, U.S.-based physicians, nurse practitioners, and physician assistants were asked what the biggest challenge to health care would be in the next decade, and the physicians overwhelmingly cited financial concerns as the most significant challenge (All Medical Personnel, 2019).

Burnout among clinicians has led to a high turnover rate of physicians (Aiken et al., 2023). Physician respondents graded patient safety unfavorably in hospitals, reporting poor work environment and lack of confidence in management, which was researched and documented by physicians accounting to the US Surgeon General is in dismay despite the receding of the pandemic (Aiken et al., 2023). Healthcare management did not transform the overflow of public gratitude to the medical team during the COVID-19 pandemic's peak into actionable change by hospital management to address the causes associated with high clinician burnout and occupation disappointment that predated and

degenerated during the COVID-19 pandemic timeframe (Aiken et al., 2023). According to Aiken et al. (2023), physicians categorized health care centers as hostile work environments and reported that workloads were beyond clinicians' control. Physicians demonstrated increased burnout, job dissatisfaction, and intentions to leave their current occupations (Aiken et al., 2023). The culture of patient safety remains frequently debated outside the environment of clinician well-being; nevertheless, Aiken et al. found it meaningfully associated with physician dissatisfaction, the aim to leave, and health care staff outcomes. Hospitals with limited physicians, uncomplimentary occupation environments, and capabilities beyond clinicians' control had significantly more physicians who displayed increased burnout, occupation dissatisfaction, and intentions to leave. At the same time, the culture of patient safety measures has little relationship with burnout and physicians' outcomes. Aiken et al.'s cross-sectional survey showed that physicians in hospitals feel overwhelmed with stress, even in organizations that were good places to work, threatening hospital employees' retention and strength as well as patient safety.

Job satisfaction is motivational and leads to positive employment relationships in addition to high levels of individual job performance in health care (Guevara et al., 2020). Generally, researchers have found that workforces with increased job satisfaction will enhance the employees' mental and physical well-being, occupation participation, and quality of life (Guevara et al., 2020). As health care team leaders, physicians can demonstrate transformational leadership behaviors and work to motivate, inspire, and support their colleagues. The results have shown that physicians' transformational

leadership accounted for 49% of the variance in job satisfaction (Guevara et al., 2020). According to Guevara et al. (2020) factors of a physician's fulfillment level depend on various elements, such as keeping an open line of communication with patients, knowledgeable encouragement, the opportunity for continued medical education, and connections with coworkers and administrators.

When assisting patients' lives is adequately controlled, specialists' and caregivers' stress syndrome sense gratification besides satisfaction slightly more than burnout, which otherwise causes exhaustion. The work environments generated by the COVID-19 pandemic were a transparent hazard to health care professionals' mental health and could result in their burnout, empathy, low energy, and consideration satisfaction (Lluch et al., 2022). Those components remain vital to address to accomplish the satisfactory welfare of health care generalist physicians, which can strongly affect the excellence of care provided to patients and their families (Lluch et al., 2022). Health care organizations that emphasize employee satisfaction and invest in employees will likely maintain employment, decrease staff resignation rates, and attract high-quality employees (Lluch et al., 2022). Furthermore, gratified employees were more connected and positively influenced their organization's culture (Kupietzky, 2023).

When employees are satisfied in the health care industry, it will assist in patient care satisfaction outcomes. Maintaining employee satisfaction has traditionally been challenging for healthcare organizations on essential levels, and the COVID-19 pandemic opened the satisfaction approach (Kupietzky, 2023). Creating a positive environment at a hospital among employees and professionals involves an obligation from the

administration and willingness from all establishment levels. Having the stockholders, play a part in the health care employee environment makes an impact of clear communication between leadership and stockholders of the health care systems. Having a clear and reasonable commitment and administrative policies assists with job satisfaction, which is the positive and fair supervision of employees (Kupietzky, 2023). A comfortable working environment is more likely to be a positive workplace environment for professional employees (Kupietzky, 2023).

Healthcare administration focused on staff satisfaction, and job satisfaction revealed that the essential workforce is dominant for healthcare workers and public healthcare establishments and reduces staff turnover (Kupietzky, 2023). The elevated levels of employment satisfaction remain straightforwardly correlated with the enhanced quality of the health care skills and quality of care provided and superior patient trustworthiness to treatment (Diakos et al., 2022). Human resources should consider that maintaining high levels of job gratification among health care workers through motivation configurations can directly affect the quality of care and assistance received. During the COVID-19 pandemic, there was an increase in job satisfaction (Diakos et al., 2022). Furthermore, in each configuration of the national health system, the human resource department must communicate directly with specializations, psychiatrists, generalist physician, and occupational physicians to obtain high job satisfaction among health care workers (Diakos et al., 2022).

Job satisfaction in health care factors that will boost and engage with the employees concerning the employees and how they were treated and treat the patients and their families:

- Having trust with the workforce staff and having confidence in the leadership.
- Having senior health care administrators engage in patient care with the generalist physician and health care staff.
- Having security in the day-to-day anxiety of the patient care environment.
- Being transparent with patients and the professional health care staff.
- Being open and honest with communication with all staff and patients and their families will increase positive job satisfaction (Kupietzky, 2023).

Benefits and rewarding the professional health care staff were essential in ensuring they know the health care administrator and their job performance with the patient care outcomes (Kupietzky, 2023). Job satisfaction is essential in the health care environment because of its effects on patient care outcomes. Turnover and retention rates can be costly with recruiting qualified people for the organization. Productivity is essential in making sure the staff is well rested. Keeping the staff happy is the number one thing that keeps staff retained and stable (Kupietzky, 2023).

#### **Patient Safety Outcome**

The circumstance of patient safety is associated with burnout among health care practitioners. Elevated levels of burnout remain connected to workplace conditions due to occupational stress. The structured workflows generate self-sufficiency for health care practitioners, encouraging satisfactory patient safety. With practices at a 66.4%

probability of superiority, with the relationship between the development of burnout and patient safety actions. There was a relationship between elevated levels of burnout and worsening patient safety. Elevated levels of burnout occur connected to peripheral factors, such as increased work capabilities, longer work hours than normal workload, and connections of work relationships. Health care practitioners have to avoid fatigue to improve the approach to patient safety outcomes (Garcia et al., 2019).

The current literature examines the relationship between health care professionals and the correlation between patient and organizational outcomes. They found that burnout continues to be a problem in health care organizations. They reviewed 20 studies and found that burnout affected organizational-related outcomes such as patient safety, quality of health care services, managerial obligation, health care professional productivity, and patient fulfillment outcomes (Jun et al., 2021).

The relationship between physician burnout, patient safety, professionalism, and patient outcome satisfaction: Physician burnout took the method of an epidemic that might influence core areas of health care distribution, incorporating patient safety, quality of care, and patient satisfaction. Nevertheless, this indication has yet to be analytically quantified. The meta-analysis indicates that physician burnout might risk patient satisfaction. The jeopardy has been observed as essential to health care physician wellness. The quality of care for patients and the outcome of safety involves improvements to concise detention of the results of burnout with the health care performance and organizations (Panagioti et al., 2019).

While it is challenging to control detailed fundamental relationships, burnout remains connected to rising patient safety cases, diagnostic errors, decreased patient outcome satisfaction, and lesser safety and quality health care ratings. The fatigue and depersonalization that remain the critical fundamentals of burnout can trigger health professionals' emotional state of tiredness and cynicism, and the container becomes reserved and emotionless when facing the patient's needs, all of which compromise the quality of care. Indeed, in elevation levels of safety and occupation satisfaction by well as more excellent patient and family criticisms and patient dissatisfaction. The research acknowledged that burnout and calculates of well-being consume an independent association with patient errors, unconnected from their relationship with other variables (Yellowlees & Rea, 2022).

Burnout can similarly intimidate patient safety and quality of care once depersonalization advantages toward inaccurate patient communication. When burned out, generalist physician experience impaired responsiveness, retention, and decision-making tasks. The patient outcomes impact of limited evidence exists from health care professionals. Suitable work environments attenuated the relationship between health care professional burnout and casualty, inability to assist a patient, and lengthy hospital stays. Reduction of the relationship between health care generalist physician burnout and patient outcomes remained observed, and the occupation atmosphere had a statistically noteworthy effect on outcomes. A large sample of health care facilities and patients measured how an extensive distribution of health care professional burnout in the U.S. health care facilities influences patient outcomes. Specifically, patients cared for in health

care facilities with elevated levels of health care professionals who were burned out consume higher probabilities of patient humanity, disappointment to challenge, and longer lengths of stay, further indicating that there were life-threatening significances aimed at patients.

The results support previous studies estimating the association of burnout with nonclinical outcomes, such as professional health care recognized quality and patient care safety. The research shown develops on it by positioning the analysis of the professional burnout result on patient consequences within the work environment context. This study researched the higher burnout rate associated with the rising risk of these adverse patient outcomes. The hypothesis research that the work invented might be influenced to minimize the effect. The outcomes suggest that health care administrators considering alleviating professional burnout and improving patient outcomes simultaneously might accomplish both by improving their work environment (Schlak et al., 2021).

#### **Definitions**

Generalist physician: Physicians involved in the general practice of medicine, i.e., family practice, internal medicine, and pediatrics. Primary care physicians practice their awareness, physical activity, and knowledge to manner wellness appointments and sick visits for acute illnesses (American Academy of General Physicians, 2022).

Health care burnout: There is an elevated amount of emotional fatigue, depersonalization, and a low awareness of individual achievement at occupation (Murthy, 2022).

Patient safety: The causes were aftercare and treatments patients obtain in hospitals or other clinical surroundings. After their confession assessment, they encounter the patient's physical, social, and emotional demands to emphasize what is important to them (Wardle, 2022).

*Physician burnout*: A long-duration stress effect that container included emotional tiredness. Depersonalization disorder with deficiency of understanding for or negative attitude concerning patients. The reaction of reduced personal accomplishment (Agency for Healthcare Research and Quality, 2023).

#### **Assumptions**

The study assumed that perceived patient safety was influential in the burnout of generalist physicians. The results from the data collected using mediation analysis model (Hayes, 2023), surveys taken by generalist physician on burnout and patient safety outcomes influence the excellent practice of patient safety outcomes.

#### **Scope and Delimitations**

The problem the study addressed is that health care management needed to work continuously reducing physicians who practice in a generalist specialty burnout and that a higher focus on patient safety reduction of burnout. The quantitative analysis survives between perceived safety outcomes (independent variable) and generalist physician burnout (dependent variable). The connections between the frame present and the nature of the study included the two-factor theory related to the study satisfaction and dissatisfies related to variable burnout and patient safety. Based on data compiled from

the studies, physician burnout remained connected with two times the odds of association in patient safety incidents.

The fundamental biases elements of burnout trigger health care professionals' approach of exhaustion and distrust and compromise the quality of care the patient requirements. Most importantly, the study managed workload and workload consistency.

#### Significance, Summary, and Conclusion

This study had significant positive social change; it will bring awareness of generalist physician burnout rates and how to potentially reduce burnout through an emphasized focus on the quality of patient safety outcomes. Burnout of generalist physicians and health care employees was conditioned of emotional exhaustion, depersonalization disorder, low individual accomplishment advantages and reduced effectiveness at work (De Hert, 2020). Association between generalist physician burnout and the association between patient organizational consequences; occasionally, burnout stands observed as an individual issue.

Nevertheless, reframing burnout as an administrative and combined occurrence affords larger perspective for addressing health care burnout with generalist physician. Burnout remains a problem in health care organizations (Jun et al., 2021). The outcomes appeared that the general interventions consumed to progress burnout remained improving communication services, collaboration, participating plans, and psychological interventions like yoga, meditation, and mindfulness. The direction of these interferences can improve mental health in the extended term (Salvado et al., 2021).

#### Section 2: Research Design and Data Collection

The problem addressed in this quantitative study was that health care management needed to reduce burnout among physicians who practice in a generalist specialty to increase patient safety. Perceived patient safety outcomes were the independent variable, and burnout among physicians who practice as a generalist was the dependent variable. I examined whether patient safety outcomes, including suboptimal patient care and professional disorganization, were correlated with physician burnout.

#### **Research Correlation Design and Rationale**

This quantitative dataset analyzed generalist physician burnout and patient safety outcomes. The data used in this study included The Medscape Physician Burnout and Depression Report 2023 survey, collected responses composite scores for job demands and mental load, and the individual scores for correctly diagnosing patients and applying accurate clinical protocols (Carbajal, 2023). The statistical analysis included the variable from the scale.

I used two-factor theory to examine how the concepts of job satisfaction related to the variable of burnout and how job dissatisfaction is related to overall work product or patient safety. The following research question guided this study: Is there a correlation between perceived patient safety outcomes and generalist physician burnout? In this quantitative study, I conducted a correlation analysis of a two-tailed Pearson correlation test to establish the relationship between the independent and dependent variables. Two-tailed Pearson correlation test hypotheses: The null hypothesis happens the correlation coefficient is not significantly different since zero, without a linear relationship

(DATAtab, 2024). The alternative hypothesis is the correlation coefficient deviated significantly from zero; there is a linear correlation (DATAtab, 2024). A *t* test is frequently used in hypothesis analysis to verify whether a management activity affects the patient population of important (Bevans, 2023).

This study was based on Herzberg's (1974) two-factor theory of job attitudes. I examined the differences between factors that affect employee satisfaction and dissatisfaction. Employee satisfaction is related to personal performance and recognition. Herzberg's theory was significant to the current study because it allowed me to analyze the relationship between organizational outcomes and employee dissatisfaction, burnout, and turnover. The Statistical Package for the Social Sciences (SPSS) Version 28.0.1.0 (142) was used for advanced statistical analysis. Although SPSS has exhibited its prototype benefit in the field of social sciences, its application has since expanded into other fields (Tech Target Contributor, 2024).

#### Methodology

#### **Population**

The target population for this study was 2,400 Dutch generalist physicians. A random sample of 2,400 Dutch generalist physicians were mailed a survey-type questionnaire that focused on job stress, job satisfaction, burnout, personal characteristics, job characteristics, and perceived working conditions. Most of the physicians worked in hospitals, either academic hospitals or financially independent unions in general, and disease-specific hospitals and a small number (psychiatrists) had private practices (Verhoef et al., 2021).

#### Sampling and Sampling Procedures Used to Collect Data

I obtained the secondary data for the current study from a quantitative Maslach Burnout Inventory Human Service Survey (MBI-HSS) 2020 empirical study. The work-related condition survey included data for physicians who practice as a generalist, including the comprehensive occurrence of burnout, and their patients. The data included reaction rate, the standard age of generalist physicians, and the mean number of years the generalist physicians practiced. The MBI-HSS data also included the health care organization size, number of times worked per week, emotional exhaustion, depersonalization, personal accomplishment, overall burnout, mean and proportionality approximations of subcomponents of fatigue, and prevalent burnout for all generalist physicians and male versus female generalist physicians (Karuna et al., 2022).

The secondary data were first collected online and by mail-in surveys from generalist physicians. A calculation of sixteen cross-sectional analyses with 7,595 members was included in the combined burnout rate shown from the European group's comparison in primary health care and generalist physicians (Shen et al., 2022). For this study, the dataset existed used out of the 7,595 participants; only 178 were generalist physicians for this study. The Oxford University Press and Copyright Clearance Center granted permission on June 08, 2023, for me to access the data of the survey, the codebook for the survey, and the study that could be used consisting of the license detail and the terms and conditions. The license number granted was 5564521287973, and the publisher Tax ID was GB125506730 (License Details, 2023).

The quantitative tool I used to analyze the secondary data was SPSS Version 28.0.1.0 (142). I used G\*Power Version 3.1.9.4 for power analysis. The type of power analysis was a priori. I conducted an analysis with two tails with a Cohen D, a medium effect size of 0.5, an alpha of 0.05, a power of 0.91, and an allocation ratio of one. The sample size for each group was calculated to be 89, for a total of 178 participants. The actual power for this study was 0.912.

The two-tailed Pearson correlation means were evaluated with two independent means of two groups for the central and noncentral distributions. I computed on a priori minimum sample size given ox ratio, power, and effect size. The degree of freedom for the sample two-tailed Pearson correlation was 176, with an actual power of 0.912. The central and noncentral distributions with F test ANOVA hypothesis testing included fixed effects, special, main effects, and interactions with a priori compute required sample size of given ratio, power, and effect size. The sample analysis of the overall power of the sample a 0.912 was above the 0.8 power size. This power analysis was an acceptable level of power for the power sample analysis. I used the full sample for this study because that would produce the most accurate results.

#### **Instrumentation and Operationalization of Constructs**

The MBI-HSS 2020 was the source of data on burnout among generalist physicians. Meta-analyses, systemic reviews, research support, and non-U.S. government documents were publication types used for this quantitative study (see Shen et al., 2022). I searched the following databases for relevant articles: CINAHL Plus, Embase, MEDLINE, PsycINFO, and Scopus. My review of the literature followed the Preferred

Reporting Items for Systematic Review and Meta-Analyses guidelines (see Karuna et al., 2022).

An operational measurement scale for the survey questionnaire for generalist physicians was used. The original measurement was a Likert scale. Work Pace and Quantity contained six indicators' measurements and four values measurements: 1 = always, 2 = often, 3 = sometimes, and 4 = never. Mental load contained four indicators' measurements and four values measurements: 1 = always, 2 = often, 3 = sometimes, and 4 = *never*. Autonomy contained three indicators measurement and four values measurements: 1 = always, 2 = often, 3 = sometimes, and 4 = never. Opportunity for development contained three indicators' measurements and four values measurements: 1 = always, 2 = often, 3 = sometimes, and 4 = never. Feedback contained three indicators' measurements and four values measurements: 1 = always, 2 = often, 3 = sometimes, and 4 = never. Collaboration contained three indicators measurement and five values measurements: 1 = never, 2 = sometimes, 3 = regularly, 4 = often, and 5 = very often. Self-efficacy contained four indictors' measurements and five values measurements: 1 = never, 2 = sometimes, 3 = regularly, 4 = often, and 5 = very often. Optimism contained five indicators' measurements and five values measurements: 1 = never, 2 = sometimes, 3 = regularly, 4 = often, and 5 = very often. Work home interference contained 13 indictors' measurements and four values measurements: 1 = i, 2 = often, 3 = sometimes, and 4 = inever. Emotional exhaustion contained three indictors' measurements and seven values measurements: 1 = never, 2 = sporadic, 3 = occasionally, 4 = regularly, 5 = often, 6 = occasionallyvery often, and 7 = always. Personal accomplishment contained one indictor

measurement and seven values measurements: 1 = never, 2 = sporadic, 3 = occasionally, 4 = regularly, 5 = often, 6 = very often, and 7 = always. Occupation-specific job resources demands contain 23 indicators' measurements and seven values measurements: 1 = never, 2 = sporadic, 3 = occasionally, 4 = regularly, 5 = often, 6 = very often, and 7 = always (Verhoef et al., 2021). The dataset from the survey was composed of scores for job demands and mental load, and the individual scores were for the ability to diagnose patients and apply accurate clinical protocols correctly.

### **Data Analysis Plan**

The software tools used for the analyses in this study were SPSS Version 28.0.1.0 (142) and Microsoft Excel. Survey questions for the data set were related to patient outcomes, burnout occupation-specific job demand, dissatisfied patients, and the application of protocols. The mental load questions used for this study were that work requires enhanced precision and constant attention. Both job demand and mental load were defined as independent variables for the data analysis for this study. The individual scores for correctly diagnosing patients and applying accurate clinical protocols were the dependent variable for this data analysis for this study.

The research questions and hypotheses for this study were:

RQ: Is there a correlation between perceived patient safety outcomes and generalist physician burnout?

 $H_0$ : There is no statistically significant correlation between perceived patient safety outcomes and generalist physician burnout.

 $H_a$ : There is statistically significant correlation between perceived patient safety outcomes and generalist physician burnout.

For this study, I conducted an analysis of variance (ANOVA) and the two-tailed Pearson correlation identify the relationship between perceived patient safety outcomes and generalist physician burnout. The ANOVA determination defines as the statically analysis tool that divisions an observed aggregate variability obtained within a data set into two parts: systematic factors and random factors (Kenton et al., 2023). The data compared two groups for this study, so *t* test analysis was helpful.

### Threats to Validity

External validity environmental consulted to the relationship between perceived patient safety outcomes, generalist physician with numerous factors with external variability: high demand at work, problems of leadership and collaboration, contradictory instructions, and an ominous atmosphere at work/bullying (De Hert, 2020). Hierarchy problems, poor internal communication, administrative constraints, increasing responsibility, and hierarchy problems were factors in this study (see De Hert, 2020).

Internal validity in this study was personality-related factors for physicians' burnout and patient outcomes. The internal validity factors were elevated self-expectation, conscientiousness, the vital need for recognition, and a continuous desire to please others. Other internal validity characteristics were suppressing needs, overestimating to deal with challenges, and working as only a consequential activity (see De Hert, 2020).

The conclusion of threats to validity for both external and internal validity elements of the development of burnout underlines the significance of multifactorial methods in preventing and managing the syndrome. The assessment tools for burnout provide means for distinction analysis. In individuals, the connotation concerning burnout, the long-lasting tiredness syndrome, and hopelessness is relevant because all objects segment several mutual indications, and burnout is an element for developing depression (De Hert, 2020). There were minimal validity threats for both external and internal validity for this study. Surveys of Dutch practitioners and not U.S. practitioners were used as secondary data for the current study.

### **Ethical Procedures**

The Walden University Institutional Review Board approved this secondary analysis before I began collecting data (Approval Number: 10-19-23-1077153). Oxford University Press granted me permission on June 08, 2023, to access the data of the survey, the codebook for the survey, and the study that could be used consisting of the license detail and the term and conditions provided by Oxford University Press and Copyright Clearance Center. The license number granted is 5564521287973, and the publisher Tax ID is GB125506730 (CCC Rights Link, 2023). I used SPSS Version 28.0.1.0 (142) and Microsoft Excel as tools for analyses in this study. I did not obtain any identifiable patient or provider information.

# **Summary**

I conducted this quantitative study to determine the relationship between perceived patient safety outcomes and generalist physician burnout. In this study, the

independent variable was perceived patient safety outcomes, and the dependent variable was generalist physician burnout. Mutually, job demand and mental load were defined as the independent variable for this data analysis in this study. I used the two-factor theory as the theoretical framework of the study because its concept of job satisfaction related to the variable of burnout and its concept of job dissatisfaction related to overall work product or patient safety.

The data points used in this study were survey composite scores for job demands and mental load and the physicians' individual scores for correctly diagnosing patients and applying accurate clinical protocols. The statistical analysis included the variable from scales. In Section 3, I discuss the data collection process for the secondary data set and present the results related to the relationship between perceived patient safety outcomes and generalist physician burnout.

### Section 3: Presentation of the Results and Findings

The purpose of this quantitative study was to analyze whether there is an association between perceived patient safety outcomes and generalist physician burnout. The patient safety outcomes were the independent variable, and generalist physician burnout was the dependent variable. The intent of this study was to determine whether poor patient safety created increased burnout among generalist physicians. The following research question and hypotheses guided this study:

RQ: Is there a correlation between perceived patient safety outcomes and generalist physician burnout?

 $H_0$ : There is no statistically significant correlation between perceived patient safety outcomes and generalist physician burnout.

 $H_a$ : There is statistically significant correlation between perceived patient safety outcomes and generalist physician burnout.

In Section 3, I describe the secondary data set and present the results of the analysis before concluding with a summary.

# **Data Collection of Secondary Data Set**

I used secondary data for this study. In this quantitative, observational study, the original data were collected using the mediation analysis model (Hayes, 2023). The survey of generalist physicians in the Netherlands started in 2019 and continued through 2022. Sixteen cross-sectional studies with 7,595 physicians' practices participated in the survey. Physicians deteriorate from high emotional exhaustion, high depersonalization,

and low personal exhaustion, which is frequently known as burnout syndrome (Shen et al., 2022).

In the original survey, to assess their burnout, generalist physicians were surveyed for biases, patient blaming, dealing with backlog at work, self-pacing, and treatment of some patients too impersonally. The generalist physicians were surveyed for patient safety outcomes by being asked the following question: "Does the position require great care and correct patient care diagnosis?" In this study, the average number of hours generalist physicians spent per week on maintenance and doing work were also areas surveyed.

The theoretical framework for this study was Herzberg's two-factor theory of motivation-hygiene. Herzberg (1974) described the two-factor theory as the differences between job satisfaction and dissatisfaction and how those factors affect each other. Herzberg's theory aligned with the current study because it allowed me to determine the relationship between organizational outcomes and employee dissatisfaction, burnout, and turnover. I used SPSS Statistics, Version 28.0.1.0(142), for advanced statistical analysis in this study.

Two hundred thirty-two practicing participants responded to the original survey, with 93% of generalist physicians being classified as having the potential to suffer after a minor mental health disorder, 94% as suffering mild burnout, 22% as suffering severe burnout, 72.7% as suffering overtiredness from burnout, 86.8% as having a score of insignificant from burnout, 37.9% or critical from burnout, and 48.9% feeling disconnection from burnout (Verhoef et al., 2021). A mild mental health problem is when

a person has a small number of symptoms that affect the limits of daily life. A mild mental health problem is when a small number of symptoms can make their daily life much more complex than usual. A severe mental health problem is when a person has many symptoms that can make the daily task difficult (NICE, 2011). The other variable, the occupational variable burnout, was connected with patient safety outcomes in generalist physicians (Verhoef et al., 2021).

### The Results

### **Descriptive Statistics**

The descriptive statistics of the secondary data analysis came from the survey of participants for this study, which comprised 98 males, 60 females, and 14 unknown participants. The total number of the generalist physicians who completed the study was 178. The respondents were from two age groups: 25–44 years old and 45–64 years old (see Shen et al., 2022). The secondary data for the patient safety portion of the survey included information about physicians' ability to make a correct diagnosis and accurate, dependable, and unbiased data results. Other survey items related to patient safety included the questions: "Do you have to deal with a backlog in your work?" and "Do you have problems with the work pace?" For the burnout survey, items physicians responded to included "I feel mentally exhausted by my work," "How many hours do you work per week on average? (including time for in-service training, meeting, administration, etc.)," and "I feel 'burned out' by my work."

With the number of participants measured, I analyzed the descriptive statistics for the population sample, mean, standard deviation, and variance. The mean and standard deviation were calculated as the square root of the variance by establishing each data deviation relative to the mean. In this study, the spread between the relationship between perceived patient safety outcomes and generalist physician burnout was between 0.647 and 1.231, as shown in Table 1.

 Table 1

 Population Descriptive Statistics: Patient Safety and Generalist Physician Burnout

G	N.T.	1.1	CD	<b>1</b> 7
Survey questions	N	M	SD	Variance
Safety: Make a correct diagnosis.	178	5.206	.917	.841
Safety: Do you have to deal with a backlog in your work?	178	2.298	.776	.602
Safety: Do you have problems with the work pace?	178	2.118	.647	.419
Burnout: I feel mentally exhausted by work.	178	3.146	1.278	1.633
Burnout: How many hours do you work per week on average? (Including time for in-service training, meetings, administration, etc.)	178	3.288	1.061	1.127
Burnout: I feel "burned out" by my work.	178	2.364	1.231	1.516

*Note.* Standard deviation and variance use *N* rather than *N*-1 in denominators.

### **Significant Correlation Statistics**

Table 2 shows the correlations between patient safety and generalist physician burnout. The Pearson correlations test for this study between the variables resulted in generalist physician burnout having a correlation coefficient of 0.264, 0.277, 0.288, and 0.439, which is a robust positive correlation. The result of the significant two-tailed test for this study was that there was a significant relationship between patient safety and

generalist physician burnout because they all were < .001. Therefore, I found a positive significant correlation relationship between perceived patient safety and generalist physician burnout. With a positive significant correlation between patient safety and generalist physician burnout, the null hypothesis was accepted, and the alterative hypothesis was rejected.

 Table 2

 Correlations Statistics of Patient Safety and Generalist Physician Burnout

		(Q4) Do you have to deal with a backlog in your work?	(Q5) Do you have problem with the work pace?	(Q48) I feel that I treat some patients too impersonally.
Burnout: I feel	Pearson correlation	.264**	.439**	.277**
"burned out" by	Sig. (2-tailed)	<.001	<.001	<.001
my work.	N	178	178	178
Safety: Do you	Pearson correlation	1	.288**	.005
have to deal with a	Sig. (2-tailed)		<.001	.948
backlog in your work?	N	178	178	178
Safety: Do you	Pearson correlation	.288	1	.027
have problem with	Sig. (2-tailed)	<.001		.719
the work pace	N	178	178	178
Safety: I feel that I	Pearson correlation	.005	.027	1
treat some patient	Sig. (2-tailed)	.946	.719	
too impersonal.	N	178	178	178

<sup>\*\*</sup>Correlation was significant at the 0.01 level (2-tailed).

# **Lower and Upper Limits of Confidence Intervals**

Table 3 shows the lower and upper limits of the confidence intervals for three questions: Q44 ("I feel mentally exhausted by work"), Q51 ("I feel 'burned out' by my work"), and Q83 ("Make a correct diagnosis"). The interval was one of 95% of all

possible and might overlap. The lower bounds were: (Q44) 0.588, (Q51) 0.19, and (Q83) -0.305. The upper bound levels were (Q44) 0.465, (Q51) 0.451, and (Q83) -0.041.

**Table 3**Correlations Statistics: Lower and Upper Limits of Confidence Intervals of Patient Safety and Generalist Physician Burnout

Burno	ut safety	Correlation	Count	Lower confidence	Upper confidence
Q0044	Q0004	.318	178	.179	.444
QUUTT	Q0005	.468	178	.344	.575
	Q0048	.210	178	.065	.346
Q0051	Q0004	.264	178	.122	.396
	Q0005	.438	178	.312	.551
	Q0048	.277	178	.136	.408
Q0083	Q0004	-1.76	178	315	030
-	Q0005	-1.62	178	301	015
	Q0048	-1.61	178	301	014

Note. Missing values handing LISTWISE EXCLUDED Confidence Level: 95.0.

Table 4 shows the lower and upper limits of confidence intervals for the three questions: Q4 ("Do you have to deal with a backlog in your work?"), Q5 ("Do you have a problem with the work pace?"), and Q48 ("Treating some patients was too impersonal."). The interval was one of 95% of all possible and might overlap. The lower bounds were (Q4) 0.030, (Q5) 0.488, and (Q48) 0.207. The upper bounds were (Q4) 0.4650, (Q5) 0.450 and (Q5) 0.991, and (Q48) 0.583. Regarding the relationship between patient safety and generalist physician burnout, with a positive significant correlation between patient safety and generalist physician burnout, the null hypothesis was accepted, and the alternative hypothesis was rejected.

 Table 4

 Coefficient Statistics of Patient Safety and Generalist Physician Burnout

	Unstandardized	Coefficient	Standardized			95% Confidence Interval for B	
Model	В	std. error	coefficients beta	T	Seg	Lower	Upper
(Constant)	670	.383		-1.749	.082	-1.47	.086
Safety: Do you have to deal with a backlog in your work?	.240	.106	.151	2.258	.025	.030	.450
Safety: Do you have problem with the work pace?	.739	.127	.388	5.799	<.001	.488	.991
Safety: I feel that I treat some patient too impersonal.	.395	.095	.266	4.142	<.001	.207	.583

Note. Dependent Variable: Q51: "I feel 'burned out' by my work."

# **Summary**

The purpose of this quantitative study was to explore whether there was an association between perceived patient safety outcomes and generalist physician burnout. The patient safety outcomes were the independent variable, and generalist physician burnout was the dependent variable.

The findings revealed a significant positive correlation between patient safety and generalist physician burnout, so the null hypothesis was accepted, and the alternative hypothesis was rejected. In Section 4, I will further interpret the findings, discuss the

limitations of the study, provide my recommendations for future research, describe implications for professional practice and social change, and conclude the study.

Section 4: Application to Professional Practice and Implications for Social Change

The purpose of this quantitative study was to analyze if there was an association between perceived patient safety outcomes and generalist physician burnout. For this study, I used secondary data that were collected using the mediation analysis model (see Hayes, 2023). In the original survey, to assess burnout, generalist physicians were surveyed regarding their biases, patient blaming, dealing with backlog at work, self-pacing, and treatment of some patients too impersonal. To measure patient safety outcomes, generalist physicians were surveyed about whether their work required great care, if they made correct patient care diagnosis, and how many hours they spent on an average per week basis on maintenance and doing work.

Although research has established that burnout leads to decreased patient safety, a gap in the literature existed regarding the examination of how patient safety influences generalist physician burnout. Two hundred thirty-two practicing participants responded to the original survey: 93% of general practices were classified as having the potential to suffer a minor mental health disorder, 94% as mild burnout, 22% as severe burnout, 72.7% suffered from overtiredness, and 86.8% as having insignificant in burnout, 37.9% critical of burnout, and 48.9% suffered disconnection from burnout. The occupational variable of burnout was connected with patient safety outcomes in general practice (Verhoef et al., 2021).

The culture of patient safety remains frequently debated outside the environment of clinician well-being. The research found it meaningfully associated with physician dissatisfaction, the aim to leave, and health care staff outcomes (Aiken et al., 2023).

Employee retention control is needed not just with the non-clinical staff but with the providers as well. The two-factor theory aligned with the goals of the current study because the concept of job satisfaction was related to the variable of burnout, and job dissatisfaction was associated (Kurt, 2022).

### **Interpretation of the Findings**

I found that there was a positive significant correlation between patient safety outcomes and generalist physician burnout, so the null hypothesis was accepted, and the alternative hypothesis was rejected.. The research question and hypotheses were as follows:

RQ: Is there a correlation between perceived patient safety outcomes and generalist physician burnout?

 $H_0$ : There is no statistically significant correlation between perceived patient safety outcomes and generalist physician burnout.

 $H_a$ : There is statistically significant correlation between perceived patient safety outcomes and generalist physician burnout.

Herzberg (1974) developed the two-factor theory to identify the differences between job satisfaction and dissatisfaction and the varied factors that affect each.

Motivating factors and hygiene factors are both factors that enhance employee motivation. In the two-factor theory, Herzberg categorized these factors to stimulate professionals to complete high-quality work in satisfying environments with productive job satisfaction. Motivating factors are achieved through realization, appreciation, development opportunities, and promotions. Hygiene factors include building

connections with coworkers, policies and procedures of the hospital environment, the area workstation, functioning environments, income, safekeeping, work-related conditions, and the guidance of employees (Kurt, 2022).

### **Limitations of the Study**

Some limitations will come with every study's generalizability, validity, and reliability. The generalizability limitations for the current study were that, given the results, it is vital to conduct more qualitative studies to identify and further explore occupation-specific contributing factors. Given the recruitment constraints and understaffing of academic primary care research institutes, the generalist practice physicians in the secondary data set used in the current study were independent health care professionals in small-scale working groups in outpatient care. Outpatient care is a general practice, and these physicians are essential and valuable and have a high risk of burnout. Research into the causes and consequences of burnout among generalist physicians was so limited in size that general practice physicians had its limitations (Verhoef et al., 2021). A significant limitation of the secondary dataset for this current study was how many researchers conducted this study. Researchers preferably assess multiple studies in a systematic review. Generalist physicians were surveyed regarding their biases, patient blaming, dealing with backlog at work, self-pacing, and treatment of some patients too impersonal. Bias was a systematic error that leads to the acceptance of the results and conclusions of the study, which can be misleading (Kenton et al., 2023).

The validity limitation for this study was the Oldenburg Burnout Inventory's limited construct validity. The MBI-HSS and Oldenburg Burnout Inventory are still

broadly used to measure the secondary data analysis, had some limitations of how many original surveys participated. The survey was done by Dutch physicians not applied to the USA Verhoef et al., 2021). The validity limitations of the assessment of occupation-specific job demands and job resources were also beneficial but unnoticed by researchers that survey occupation-specific job demands, and job resources timeously yield additionally explained variance over the generic job demands and job resources (Schaufeli et al., n.d.).

The survey was reliable among the physicians, given the survey was conducted and resources were available for it to be completed promptly online or by mail. The secondary data scales of the reliability of the data were corrected among the 178 generalist physicians. The survey questionnaires have known validity and reliability. The questions were looking for violations of the study of burnout among the generalist physician answered. The evidence indicated that this study's burnout assessment tool was reliable, factorial, and construct valid (Verhoef et al., 2021). The standard method bias and joint latent constituent analysis did not indicate that traditional attendance was not an issue in this survey study (Verhoef et al., 2021). The Burnout among Dutch General Practitioners was a survey collected from Dutch physicians on burnout. Although the study results could infer that the findings would be valid in other countries, this study cannot assume the same results would be found for generalist physician burnout if the survey was conducted in the United States.

#### Recommendations

Health care administrators have individual forced interventions, such as mindfulness, stress management, and discussions, which can effectively reduce burnout. Therefore, one recommendation would be that such services, including counseling and mindfulness, should be made accessible to all health care employees.

Further recommendations for patient care safety and physicians' general habits would be that health care management needs to work on reducing burnout and that a higher focus needs to be placed on patient safety to reduce burnout. The tolerance of reducing burnout to improve quality patient care safety with the reduction of the impact associated with the increased errors. Reducing required activities and prioritizing a work-life balance are great ways to focus on managing standards. Time management skills should be used to ensure physicians are on task with their workflow and patient care safety. Patient care safety is affected by physicians being on task with their workflow to encompass enough time with each patient to prevent potential mistakes. Another recommendation for furthering this study would be to offer health care staff flexibility with their vacations, family time, and self-reflection for taking care of their self-health. Ensuring the physician has ample time to complete their documentation and that the patient receives educational material about their visit would also help increase patient safety outcomes.

Further research based on this study could be undertaken to determine the U.S. health care system's burnout rate. Find ways for physicians to balance time management with patient care tasks better. Data on the effects that the COVID-19 pandemic had on

health care staff burnout in Europe countries and the United States could be studied to determine best practices going forward and develop ways to integrate these best practices. I also recommend a research study be conducted to determine if decreased patient satisfaction rates were connected with patient safety and quality of care.

# **Implications for Professional Practice and Social Change**

This study was needed because a positive work environment can affect social change through employment retention control, positive outcomes, and patient safety. Patient safety outcomes and patient experience constituents involve the health care service or intervention on the health category of patients. Burnout in health care workers has a pattern of emotional exhaustion, depersonalization, and low personal achievement that reduces work efficiency (De Hert, 2020).

The problem I addressed in this study was that health care management needed to work on reducing generalist physician specialty burnout through placing a higher focus on patient safety. The research problem was that the health care field was seeing an increase in ongoing problems with employee burnout and a decrease in patient safety (Gracia et al., 2019).

This study has a significant impact on positive social change in that it will bring awareness of practitioner burnout rates and how to reduce burnout through an emphasized focus on quality. Burnout in health care employees is a condition of emotional exhaustion and depersonalization disorder, leading to employees with low individual accomplishment advantages and reduced effectiveness at work (De Hert, 2020). Occasionally, burnout is observed as an individual issue; nevertheless, reframing

burnout as an administrative and combined occurrence affords the larger perspective necessary for addressing health care burnout, which is necessary because burnout remains a problem in health care organizations (Jun et al., 2021). General interventions to address burnout include improving communication services; collaboration; participating plans; and psychological interventions, like yoga, meditation, and mindfulness (Salvado et al., 2021).

### Conclusion

In this quantitative study, I determined the relationship between perceived patient safety outcomes and generalist physician burnout to bring awareness to practitioner burnout and how to potentially reduce burnout through an emphasized focus on quality. Patient safety outcomes were the independent variable, and generalist physician burnout was the dependent variable. I found that there was a positive significant correlation relationship between perceived patient safety and generalist physician burnout and the null hypothesis was accepted, and the alternative hypothesis was rejected.

### References

- Agency for Healthcare Research and Quality. (2023, February). *Physician Burnout*. http://www.ahrq.gov/prevention/clinician/ahrq-works/burnout/index.html
- Aiken, L., Lasater, K. B., & Sloane, D. M. (2023, July 7). *Physician and nurse well-being and preferred interventions to address burnout in hospital practice: Factors associated with turnout, outcomes, and patient safety.* JAMA Health.
- Aljabri, D., Alshatti, F., Alumran, A., Al-Rayes, S., Alsalman, D., Althumairi, A., Al-Kahtani, N., Aljabri, M., Alsuhaibani, S., & Alanzi, T. (2022, March 8).

  Sociodemographic and Occupational Factors Associated with Burnout: A Study Among Frontline Healthcare Workers During the COVID-19 Pandemic.

  Frontiers. http://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2022.854687/full
- All Medical Personnel. (2019, October 2). *Top 4 Challenges to the Healthcare Industry in the Next 10 Years*. http://allmedical.com/2019/10/02/top-4-challenges-to-the-healthcare-industry-in-the-next-10
  years/#:~:text=In%20a%202019%20All%20Medical,by%20authority%2C%20sta

  ffing%20and%20availability
- American Academy of General Physicians. (2022). What is a general physician?

  http://aagp-academy.org/what-is-a-generalphysician/#:~:text=Physicians%20who%20engage%20in%20the,sick%20visits%
  20for%20acute%20illnesses

- American Medical Association. (2023, May 3). *Measuring and Addressing Physician Burnout*. http://www.ama-assn.org/practice-management/physician-health/measuring-and-addressing-physician-burnout#:~:text=Physician%20burnout%20rates%20spike%20to%2063%25%20i
  - n%202021,-
  - The%20most%20recent&text=At%20the%20end%20of%202021,address%20the %20physician%20burnout%20crisis.
- Aryankhesal, A., Mohammadibakhsh, R., Hamidi, Y., Alidoost, S., Behzadifar, M., Sohrabi, R., & Farhadi, Z. (2019, July 31). *Interventions on reducing burnout in physicians and nurses: A systematic review*.
- Berg, S. (2022, May 17). Burnout benchmark: 28% unhappy with current health care job.

  American Medical Association. http://www.ama-assn.org/practice-management/physician-health/burnout-benchmark-28-unhappy-current-health-care-job
- Bevans, R. (2023, June 22). *An introduction to* t *tests: Definitions, formula, and examples*. Scribbr. http://www.scribbr.com/statistics/t
  test/#:~:text=A%20t%2Dtest%20is%20a,means%20is%20different%20from%20

  zero
- Bhandari, P. (2020, June 12). What is quantitative research? Definition, uses & methods.

  Scribbr. http://www.scribbr.com/methodology/quantitative-research/
- Bhandari, P. (2023, June 22). *Independent vs. dependent variables: Definition & examples*. Scibbr. http://www.scribbr.com/methodology/independent-and-

- dependent-
- variables/#:~:text=A%20dependent%20variable%20is%20the,a%20change%20in%20another%20variable)
- Carbajal, E. (2023, February 1). 29 physician specialties ranked by 2022 burnout rates. *Becker's Healthcare*. http://www.beckershospitalreview.com/hospital-physician-relationships/29-physician-specialties-ranked-by-2022-burnout-rates.html#:~:text=The%20%22Medscape%20Physician%20Burnout%20%26%2

  ODepression,said%20they%20were%20burned%20out
- Carthon, J. M. B., Hatfield, L., Brom, H., Houton, M., Schlak, A., & Aiken, L. (2022, January 1). System-level improvements in work environments lead to low nurse burnout and higher patient satisfaction.
- Cheng, A., Cheng Chieh Lu, & Gursoy, D. (2016, May 10). Impact of job burnout on satisfaction and turnover intention: Do generational differences matter?

  Washington State University.

  http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.891.4151&rep=rep1&t ype=pdf
- Chung, S., Dillon, E. C., Meehan, A. E., Nordgren, R., & L Frosch, D. (2020, March 23).

  The relationship between primary care physician burnout and patient-reported care experiences: A cross-sectional study.
- DATAtab. (2024). *Pearson Correlation*. DATA tab. http://datatab.net/tutorial/pearson-correlation

- De Hert, S. (2020, October 28). Burnout in healthcare workers: Prevalence, impact and preventative strategies.
- Diakos, G., Koupidis, S., & Dounias, G. (2022, December 16). Measurement of job satisfaction among healthcare workers during the COVID-19 pandemic: A cross-sectional study.
- Hall, L., Johnson, J., Watt, I., & O'Connor, D. B. (2019, April 23). Association of GP wellbeing and burnout with patient safety in UK primary care: A cross-sectional survey.
- Hayes, A. (2023). *The PROCESS macro for SPSS, SAS, and R*. Process Macro. https://processmacro.org/index.html
- Hayes, A., Jefreda Brown R, & Beer, K. (2023, April 5). *T test: What it is with multiple formulas and when to use them.* Ivestopedia.

  http://www.investopedia.com/terms/t/t-test.asp
- Herzberg, F. (1974). Motivation-hygiene profiles: Pinpointing what ails the organization.
- Gracia, C., Abreu, L., Ramos, J., Castro, C., Smiderle, F., Santos, J., & Bezerra, I. (2019, August 30). *Influence of Burnout on Patient Safety: Systematic Review and Meta-Analysis*. National Library of Medicine. *55(9) 553. Doi:*10.3390/medicina550090553.
- Guevara, R. S., Montoya, J., Carmody-Bubb, M., & Wheeler, C. (2020, January 17).

  Physician leadership style predicts advanced practice provider job satisfaction.
- Jarrar, M., Al-Bsheish, M., Aldhrmadi, B. K., Albaker, W., Merri, A., Dauwed, M., & Minai, M. S. (2021, November 18). Effect of practice environment on nurse

- reported quality and patient safety: The medication role of person-centeredness. MDPI Journals, 9(11)1578. http://www.mdpi.com/2227-9032/9/11/1578
- Jun, J., Ojemeni, M. M., Kalamani, R., Tong, J., & Crecelius, M. L. (2021). Relationship between nurse burnout, patient, and organizational outcomes: Systematic review. *International Journal of Nursing Studies*, 119(103933).
- Karuna, C., Palmer, V., Scott, A., & Gunn, J. (2022, February 22). Prevalence of burnout among GPs: A systematic review and meta-analysis. *British Journal of General Practice*, 72(718): e316-e324 Doi: 10.3399/BJGP.2021.0441.
- Kenton, W., Walters, T., & Li, T. (2023, June 12). *Analysis of variance (ANOVA)*explanation, formula, and applications. Dotdash Meredith.

  http://www.investopedia.com/terms/a/anova.asp
- Kupietzky, J. (2023, June 13). The role of employee satisfaction in the healthcare industry. *Forbes*.
  - http://www.forbes.com/sites/forbesbusinesscouncil/2023/06/13/the-role-of-employee-satisfaction-in-the-healthcare-industry/?sh=2469fcf769a5
- Kurt, S. (2022, October 17). Herzberg's motivation-hygiene theory: Two-factor.
- License Details. (2023, June 8). License Number 5564521287973 CCC Rights Link.
- Lluch, C., Galiana, L., Domenech, P., & Sanso, N. (2022, February 13). The Impact of the COVID-19 Pandemic on Burnout, Compassion Fatigue, and Compassion Satisfaction in Healthcare Personnel: A Systematic Review of the Literature Published During the First Year of Pandemic. MDPI Journals. http://www.mdpi.com/2227-9032/10/2/364

- Maeyer, C. D., & Schoenmakers, B. (2019, July). Exploring Intergenerational

  Differences in Burnout and How They Relate to Work Engagement, Norms, and

  Values: A Mixed-Methods Study. BJGP Open.

  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC6662876/
- Mangory, K. Y., Ali, L. Y., Ro, K. I., & Tyssen, R. (2021). Effect of Burnout among

  Physicians on Observed Adverse Patient Outcomes: A Literature Review. BMC

  Health Services Research.

  http://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=86&sid=09007cec
  1b44-42bf-a7c2-628e1bbcc567%40redis
- Marthy, V. (2022). *Health Worker Burnout*. U.S. Department of Health and Human Services Office of the U.S. Surgeon General.

  http://www.hhs.gov/surgeongeneral/priorities/health-worker-burnout/index.html#:~:text=How%20can%20you%20tell%20if,of%20personal% 20accomplishment%20at%20work.
- NICE. (2011, May 25). Common Mental Health Problems: Identification and Pathways to Care. National Institute for Health; Care Excellence. Retrieved 2024, from http://www.nice.org.uk/guidance/cg123/ifp/chapter/common-mental-health-problems#:~:text=A%20mild%20mental%20health%20problem,much%20more% 20difficult%20than%20usual.
- Panagioti, M., Geraghty, K., Johnson, J., Zhou, A., Panagopoulou, E., Chew-Graham, C., Peters, D., Hodkinson, A., Riely, R., & Aneez Esmail. (2019, March 04).

  \*\*Association between Physician Burnout and Patient Safety, Professionalism, and

- Patient Satisfaction. National Library of Medicine. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC6233757/
- Salvado, M., Marques, D., Pires, I., & Silva, N. (2021, October 9). *Mindfulness-Based Interventions to Reduce Burnout in Primary Healthcare Professionals: A Systematic Review and Meta-Analysis*. National Library of Medicine.
- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC8544467/
  Schaufeli, W. B., Desart, S., & De Witte, H. (n.d.). *Burnout Assessment Tool (BAT) Development, Validity, and Reliability*. MDPI. https://www.mdpi.com/1660-4601/17/24/949
- Schlak, A., Aiken, L. H., Chittams, J., Poghosyan, L., & McHugh, M. (2021, January 12).

  Leveraging the Work Environment to Minimize the Negative Impact of Nurse

  Burnout on Patient Outcomes. MDPI Open Access Journals.

  http://www.mdpi.com/1660-4601/18/2/610/htm
- Schlak, A., Aiken, L. H., Chittams, J., Poghosyan, L., & McHugh, M. (2021, January 18).

  Leveraging the Work Environment to Minimize the Negative Impact of Nurse

  Burnout on Patient Outcomes. National Library of Medicine.

  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC7828279/#:~:text=Good%20work

  %20environments%20were%20found,rescue%2C%20and%20length%20of%20st

  ay.
- Shen, X., Xu, H., Feng, J., Ye, J., Lu, Z., & Gan, Y. (2022, October). *The Global* Oxford Academic. http://academic.oup.com/fampra/article-abstract/39/5/943/6516614

- Tech Target Contributor. (2024). SPSS (Statistical Package for the Social Sciences.

  http://www.techtarget.com/whatis/definition/SPSS-Statistical-Package-for-the-Social-
  - Sciences#:~:text=Although%20the%20name%20of%20SPSS,using%20SPSS%2 0is%20widely%20varied.
- Trumello, C., Sonia Monique Bramanti, Ballarotto, G., Candelori, C., Cerniglia, L.,
   Cimino, S., Crudele, M., Lombardi, L., Pignataro, S., Maria Luisa Viceconti, &
   Babore, A. (2020, November 12). Psychological Adjustment of Healthcare
   Workers in Italy during the COVID-19 Pandemic: Differences in Stress,
   Compassion Satisfaction between Frontline and Non-Frontline Professionals.
   MDPI Journal. http://www.mdpi.com/1660-4601/17/22/8358
- Twomey, P. J., & Kroll, M. H. (2008). *How to Use Linear Regression and Correlation in Quantitative Method Comparison Studies*. PubMed. http://pubmed.ncbi.nlm.nih.gov/18324950
- U.S. Surgeon General. (2022). Addressing health worker burnout. U.S. Department of Health and Human Services, Office of the U.S. Surgeon General. http://www.hhs.gov/sites/default/files/health-worker-wellbeing-advisory.pdf
- Verhoef, N., De Ruiter, M., Blomme, R. J., & Curfs, E. C. (2021, May 25). *Burnout among Dutch General Practitioners*. Mendeley Data.

  http://data.mendeley.com/v1/datasets/compare/xz9wwsfbxk/2/1
- Verulava, T. (2022, June 23). *Job Satisfaction and Associated Factors Among Physicians*. PubMed.

- $http://pubmed.ncbi.nlm.nih.gov/35735782/\#: \sim: text=Satisfaction\%20 level\%20 depends\%20 on\%20 multiple, relationship\%20 with\%20 colleagues\%20 and\%20 managers$
- Wardle, C. (2022, August 2). *Patient Outcome Explained*. Access Group.

  http://www.theaccessgroup.com/en-gb/blog/hsc-patient-outcomes-explained/#:~:text=What%20are%20Patient%20Outcomes%3F,what%20is%20important%20to%20them.
- Webb, R. (2023, March 12). *Hypothesis Test for a Correlation*. Libre Texts Statistics. http://stats.libretexts.org/Bookshelves/Introductory\_Statistics/Mostly\_Harmless\_S tatistics\_(Webb)/12%3A\_Correlation\_and\_Regression/12.01%3A\_Correlation/12 .1.02%3A\_Hypothesis\_Test\_for\_a\_Correlation#:~:text=The%20null%2Dhypothe sis%20of%20a,test%20for%20the%20correlation%20coefficient.
- Western Governors University. (2019, June 6). Workplace Burnout: Causes, Effects, and Solutions. http://www.wgu.edu/blog/workplace-burnout-causes-effects-solutions1906.html#close
- White, K., Dulko, D., & DiPietro, B. (2022). The effect of burnout on quality of care using Donabedian's Framework. *Science Direct*, *57*(1), 115–130.
- Willard-Grace, R., Knox, M., Huang, B., Hammer, H., Kivlahan, C., & Grumbach, K. (2019, January). *Burnout and Health Care Workforce Turnover*. The Annals of Family Medicine. http://www.annfammed.org/content/17/1/36.short
- Winter, V., Schreyogg, J., & Thiel, A. (2020, April). Hospital Staff Shortages:

  Environmental and Organizational Determinants and Implications for Patient

Satisfaction. Science Direct.

http://www.sciencedirect.com/science/article/abs/pii/S0168851020300038

Yellowlees, P., & Rea, M. (2022, September 27). *AHRQ*. PSNet-Agency for Healthcare Research and Quality.

 $http://psnet.ahrq.gov/primer/burnout\#: \sim: text = While \%20 it \%20 is \%20 difficult \%20 to, poorer \%20 safety \%20 and \%20 quality \%20 ratings.$