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Economic and Organizational Drivers of Physician Burnout: Implications for Healthcare System Efficiency

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Abstract

Physician burnout increasingly reflects a structural consequence of economic models that reconfigure medical practice around metric-based performance, administrative surveillance, and cost containment. Contemporary health systems, particularly within privatized or volume-driven care environments, tie compensation to relative value unit (RVU) production, incentivizing short encounter lengths, high patient turnover, and excessive documentation divorced from clinical meaning. Financial structures displace the diagnostic and interpretive core of medicine, privileging billable services and template-based charting over longitudinal reasoning, differential development, and therapeutic nuance. The proliferation of electronic health record (EHR) systems, originally intended to streamline care, has instead become a vector of cognitive overload, requiring physicians to engage in redundant data entry, justify clinical decisions in billing-friendly language, and respond to non-clinical alerts and compliance prompts that fracture workflow and degrade attentional focus. Algorithmic scheduling tools, productivity dashboards, and prepopulated clinical pathways further constrain professional autonomy, leaving minimal temporal margin for uncertainty management, complex case reflection, or psychosocial engagement. Many economic instruments framed as efficiency mechanisms produce recursive inefficiencies: delayed diagnoses due to rushed evaluations,

unnecessary testing driven by defensive documentation, and fragmented care resulting from physician disengagement and turnover. Burnout manifests in this context as an epiphenomenon of institutional design expressed through emotional exhaustion, moral injury, and the erosion of cognitive empathy. Rising rates of premature exit from clinical practice, declining mentorship capacity, and reduced diagnostic accuracy amongst affected physicians introduce measurable system-level costs that undermine quality metrics and patient safety benchmarks. Addressing burnout requires neither resilience training nor individualized remediation, but a thorough reexamination of the financial and administrative architectures that govern clinical labor and reaffirm the ethical and relational dimensions of medical practice.

Keywords

Physician Burnout, Healthcare Economics/Financial Incentives, Administrative Burden, Professional Autonomy, Moral Injury

1. Introduction

Physician burnout has become an urgent issue in modern healthcare, drawing increasing attention due to its rising prevalence and serious consequences. Defined by emotional exhaustion, a sense of detachment or depersonalization, and a reduced feeling of personal accomplishment, burnout now affects over 40% of physicians in the United States (Maslach & Leiter, 2016; Shanafelt et al., 2019). The problem is especially pronounced in high-stress fields like emergency medicine, internal medicine, and primary care, where daily demands and emotional strain are often the most intense. For years, efforts to address burnout have focused mostly on individual traits such as specific personality types, coping mechanisms, or inability to effectively balance work and life. However, this narrow lens tends to frame burnout as a personal shortcoming rather than accounting for the significant factor of how modern healthcare is organized, and how its structure may lead to increased symptoms of burnout in physicians.

Physician burnout has traditionally been framed as an individual problem related to resilience or coping ability. However, increasing evidence suggests that structural and organizational factors within modern healthcare systems play a far more significant role. Economic pressures, administrative burdens, and rapidly evolving technological infrastructures have reshaped clinical practice environments in ways that directly influence physician well-being. Burnout therefore reflects not only emotional exhaustion but also systemic tensions between professional values and institutional demands. Closely related to burnout is the concept of moral injury, which refers to the psychological distress experienced when physicians are unable to provide care consistent with their ethical or professional standards due to systemic constraints.

A major driver of this shift lies in the changing nature of medical work itself.

Today's healthcare environments are increasingly governed by performance metrics, financial targets, and administrative demands. For example, compensation models that tie income to relative value unit (RVU) production have restructured clinical priorities. This pushes physicians to see more patients in less time, document care in billing-friendly formats, and focus on efficiency over nuance (Sinsky et al., 2016). Patient care has become less and less centered around individual patients, and more towards meeting quotas and fulfilling insurance company requirements. Electronic health records (EHRs), though originally designed to improve care coordination, have instead become a major source of stress. They require constant data entry, interrupt clinical workflows, and generate alerts that pull attention away from the patient (Downing et al., 2018). Physicians must also learn to balance technical procedures on top of performing medical procedures, adding to the increased symptoms of burnout.

The fallout from burnout doesn't stop with the individual. Health systems face growing consequences as physicians start to disengage emotionally, cognitively, and eventually professionally. These consequences include increased turnover, reduced diagnostic accuracy, and lower overall productivity. The financial toll is significant as well: one study estimates that burnout costs the U.S. healthcare system about $4.6 billion annually, factoring in everything from early retirements to recruitment expenses and lost clinical capacity (Han et al., 2019). However, the deepest cost is the erosion of medicine's ethical and relational core. Burnout weakens mentorship, damages team dynamics, and ultimately compromises the quality and safety of patient care (West et al., 2018). Addressing it requires more than just wellness seminars or mindfulness apps. Physician burnout needs a systemic rethink of the economic incentives and administrative structures that shape and affect how care is delivered. While physician burnout has been widely studied across medical specialties, relatively limited research has explored how these systemic pressures affect dermatology specifically, despite the specialty's increasing reliance on productivity-based compensation models and high procedural volume. The increasing prevalence of physician burnout reflects the growing complexity of modern healthcare systems and the structural pressures placed on clinicians across specialties (Jachmann et al., 2025).

The objective of this review is to examine the economic and organizational structures contributing to physician burnout and to evaluate their downstream consequences for healthcare system efficiency. Specifically, this review addresses the following questions: What economic and administrative structures contribute most significantly to physician burnout? How do these structural factors affect physician decision-making, patient outcomes, and healthcare system sustainability? What policy and organizational reforms may mitigate these systemic drivers of burnout?

2. Methods

This narrative review synthesizes peer-reviewed literature examining the eco-

nomic, administrative, and structural drivers of physician burnout. Relevant studies were identified through searches of PubMed, Google Scholar, and major medical journals using combinations of keywords including "physician burnout," "relative value units (RVU)," "electronic health records," "administrative burden," and "medical student debt." Literature published between 2008 and 2024 was prioritized to reflect contemporary changes in healthcare delivery and physician workforce dynamics. Studies were included if they examined organizational or economic contributors to physician burnout or evaluated institutional or policy-level interventions aimed at reducing these drivers. Selected studies were reviewed and synthesized to identify recurring structural themes and potential system-level reforms.

3. Literature Review

3.1. Metric-Based Compensation Models and Their Impact

A. Relative Value Units (RVUs) and Productivity Pressures

Modern healthcare often ties physician compensation to Relative Value Units (RVUs), a metric quantifying the "value" of each patient encounter or procedure. These pressures are increasingly relevant in dermatology, where procedural billing structures and high patient volumes have led many practices to adopt RVU-driven productivity models similar to those observed in other outpatient specialties. RVU-based models have become ubiquitous in the United States, with many organizations setting strict productivity targets that physicians must meet to maintain their income (Sinsky et al., 2016). This system standardizes billing, but it emphasizes quantity over quality: physicians are incentivized to see more patients in less time, since each additional visit or procedure directly boosts RVU totals (Downing et al., 2018). Activities that do not generate RVUs-such as patient counseling, care coordination, or thorough documentation-tend to be devalued or done hurriedly, because they do not contribute to the bottom line. Unfortunately, the result is often shorter visits and rushed care, with less attention to the nuanced, non-billable aspects of quality clinical practice.

The relentless pressure to maximize RVUs has been directly linked to higher burnout rates. Physicians in volume-driven settings report feeling like "factory workers" on an assembly line, expected to churn through visits to hit productivity quotas. In one national survey of hematology/oncology specialists, those working under pure productivity-based pay plans had significantly higher odds of burning out compared to peers on salaried models (Lee et al., 2023). More broadly, a fee-for-service environment, in which more patients and more procedures equal greater pay, correlates with greater emotional exhaustion and depersonalization, as doctors sacrifice personal time and professional autonomy to keep up with demand (Friedberg et al., 2015). Tellingly, studies have found that for every hour physicians spend face-to-face with patients, they spend nearly two additional hours on electronic paperwork and clerical duties (often after hours) in order to meet RVU-related requirements (Sinsky et al., 2016). This "invisible overtime"

erodes work-life balance and contributes to chronic stress. In short, a compensation structure that prioritizes throughput over thoughtful care creates an environment ripe for burnout.

B. Financial Incentives and Ethical Dilemmas

The drive for productivity not only affects physicians' schedules but can also create ethical dilemmas in clinical decision-making. Tying financial incentives to specific metrics or services may put physicians' moral values in conflict with business goals. Repeatedly facing such situations can lead to what has been termed "moral injury." This concept, adapted from military psychology, describes the distress clinicians feel when they cannot practice according to their ethical standards due to systemic constraints. Physicians know what care their patients truly need, yet productivity targets, reimbursement rules, and administrative mandates may prevent them from delivering it (Dean et al., 2020).

Such moral conflicts can erode the patient–physician relationship. When doctors are forced to speed through visits or recommend treatments under duress of financial metrics, patients often sense the lack of presence or ulterior pressures. Burnout and moral injury manifest in physicians as cynicism or emotional withdrawal, which patients experience as a lack of empathy or personalized attention. Indeed, research shows that physicians suffering burnout tend to have lower patient satisfaction scores, partly because they communicate less effectively and may appear disengaged (West et al., 2018). This aligns with common sense: a clinic culture fixated on numbers can end up treating patients as statistics, leaving them unfulfilled and less trusting of their providers. In sum, financially driven practice norms can inflict moral stress on physicians and undermine the therapeutic alliance at the core of quality care.

C. Alternative Compensation Models

Growing recognition of these issues has led some health systems to explore alternative compensation models that de-emphasize pure volume. Salary-based models, for instance, pay physicians a fixed annual salary (sometimes with small bonuses for quality or patient satisfaction) rather than paying per service. This approach removes the direct incentive to cram in extra visits or procedures. A doctor on a straight salary can spend a bit more time with each patient without taking a personal pay cut for doing so. In theory, this realigns priorities towards quality of care-the physician's goal becomes delivering good care (and staying within reasonable practice guidelines), not simply generating more billable units. Early evidence suggests that physicians in predominantly salaried settings tend to have lower burnout rates than those in RVU-heavy environments (West et al., 2018). When income is delinked from each marginal visit, physicians gain the breathing room to focus on communication, teamwork, and preventive care-factors that improve professional fulfillment.

Beyond pure salary models, hybrid compensation structures are also being tried. These can include a base salary combined with performance incentives based on quality metrics, patient outcomes, or team-based goals (rather than raw volume).

For instance, a group practice might guarantee physicians a stable base pay but provide bonuses for achieving high patient satisfaction, low hospital readmission rates, or effective chronic disease management. Such models attempt to reward value over volume. While research on hybrids is still emerging, the intent is to reduce the burnout associated with chasing one-dimensional RVU counts and instead foster a more balanced approach to productivity.

Despite their advantages, salary-based and hybrid compensation models also present challenges. Defining and measuring "quality" in healthcare can be complex, and quality-based incentives may rely on metrics such as patient satisfaction scores or readmission rates that do not fully capture clinical complexity. Additionally, some studies suggest that purely salaried models may reduce productivity if safeguards are not implemented to maintain accountability and patient access. As a result, many institutions are exploring hybrid compensation systems that balance productivity expectations with quality-based incentives.

3.2. Administrative Burdens and Electronic Health Records (EHRs)

A. EHR-Related Workload

Alongside financial pressures, administrative burdens have increasingly been cited as a major driver of physician burnout. Chief among these is the workload imposed by Electronic Health Records (EHRs). These digital record systems, now nearly universal in hospitals and clinics, were intended to streamline documentation and coordination of care. In practice, however, EHRs have added hours of clerical work to physicians' days. Multiple studies have quantified a striking imbalance: for every hour a physician spends in direct face-to-face care, he or she spends roughly two additional hours on EHR tasks and paperwork (Sinsky et al., 2016). This includes writing notes, filling out billing codes, responding to endless inbox messages, and completing required forms-activities that often spill over after clinic hours. Many doctors now spend part of each evening (so-called "pajama time") finishing charts or entering orders. It is not uncommon for a full-time physician to click and type in the EHR until 9 or 10 PM, long after the last patient has gone. This documentation overload not only eats into personal and family time, contributing to work-life conflict, but also creates a sense of drudgery. Physicians trained as healers find themselves acting as data clerks for a substantial portion of the day.

The sheer time spent on documentation can surpass time spent on patient interaction, which is deeply demoralizing. A landmark 2016 study found that primary care physicians were allocating more than half of their total workday to EHR and desk work, as opposed to patient care (Arndt et al., 2017). Such figures have only grown in recent years. Importantly, this workload is not driven by direct patient needs so much as by regulatory and billing requirements. Every prescription, lab order, or referral must be meticulously documented and justified in the computer to satisfy insurance and compliance rules. Progress notes have ballooned in

length because they must include certain phrases or checkboxes for billing-even if much of that content is copy-pasted boilerplate with little clinical relevance. As Downing et al. (2018) noted, onerous regulations are the root cause of the EHR documentation burden: physicians are essentially *writing novels* of documentation to meet coding and legal standards, rather than writing succinct notes solely to benefit patient care (Downing et al., 2018). All of this leads to cognitive overload. Doctors must remember to complete dozens of minor tasks in the record for each patient (problem lists, medication reconciliation, billing levels, meaningful use criteria), fragmenting their attention. Over time, the constant strain of tending to the electronic paperwork can exhaust physicians' mental energy, leave less enthusiasm and focus for the human side of medicine. In aggregate, these findings paint a picture of physicians overburdened by digital paperwork, to the detriment of both their personal well-being and their capacity to care for patients.

B. Usability Challenges

A second key issue is the usability of EHR systems. Many physicians describe their EHR as having a clunky, unintuitive interface that makes even simple tasks laborious. Unlike modern consumer apps that emphasize user experience, the leading EHR platforms evolved primarily to meet billing and compliance needs, not to serve clinicians' workflow (Downing et al., 2018). As a result, using an EHR often involves navigating complex menus, clicking through multiple screens, and entering duplicative data. For example, ordering a single medication might require a physician to click through five or six confirmation dialogs. Documentation templates can be rigid and overflowing with irrelevant fields, forcing doctors to constantly perform extra scrolling and data entry. These design shortcomings frustrate providers and slow them down, contributing to feelings of inefficiency. In one study, 54% of primary care physicians said that current EHR systems *actually impeded* their clinical effectiveness, and an overwhelming majority (59%) felt that today's EHR software needs a "complete overhaul" due to poor usability (Downing et al., 2018). When doctors perceive the technology as a hindrance rather than a help, it breeds cynicism and stress. Each unnecessary click or redundant form can become a small act of daily aggravation, and over hundreds of patient encounters, this adds up substantially.

Beyond poor interface design, information overload is another usability challenge. EHRs bombard physicians with vast amounts of data and alerts. Every lab result, specialist note, or medication refill request generates a notification in the system's inbox. Important clinical information is often buried within bloated notes filled with auto-imported text to satisfy billing. Doctors must sift through these lengthy records to find the meaningful details – a mentally fatiguing exercise that can lead to mistakes or missed information. The EHR also generates frequent interruptive alerts (for drug interactions, health maintenance reminders, etc.) which, while well-intended, often fire so often that they become "alarm fatigue" background noise. This deluge of electronic messages and reminders has been directly linked to burnout: physicians receiving the highest volume of EHR inbox

notifications are significantly more likely to report symptoms of burnout (Budd, 2023). In surveys, up to 70% - 75% of physicians with burnout point to EHR usability problems—from tedious documentation to excessive alerts—as a major contributor (West et al., 2018). Simply put, the current generation of EHR systems often fails the front-line user (the physician), requiring tremendous cognitive effort for marginal benefit. This mismatch between effort and reward in daily software use is a classic recipe for job dissatisfaction. Many doctors lament that they spend more time interacting with the computer than with the patient, a situation ripe for burnout and one that degrades the joy of practicing medicine.

C. Strategies for Improvement

Addressing EHR-related burnout requires both technological and organizational solutions. One important strategy is to pursue user-centered design enhancements for health IT systems. This means actively involving physicians and nurses in the design, testing, and refinement of EHR interfaces so that the tools align better with clinical workflows. Some progress is being made on this front. For example, healthcare organizations have launched initiatives like "Getting Rid of Stupid Stuff," a program famously instituted at a Hawaii hospital to identify and eliminate unnecessary documentation tasks (Ashton, 2018). Front-line providers were encouraged to flag EHR requirements that felt pointless or redundant; those suggestions led to concrete changes such as removing duplicative progress note entries and auto-stopping certain low-value alerts. Similarly, vendors are beginning to streamline interfaces—reducing the number of clicks for common actions and decluttering screens—based on provider feedback. The goal of user-centered design is an EHR that functions as an intuitive tool supporting clinical care, rather than a bureaucratic hurdle. Usability improvements, combined with sensible regulatory reform (e.g. trimming documentation rules to only what's truly necessary for patient care), could substantially cut down the administrative overload that physicians face (Downing et al., 2018).

Another key strategy is leveraging team support and emerging technologies to offload clerical work from physicians. Many experts advocate for team-based documentation, where nurses, medical assistants, or dedicated scribes handle a portion of the EHR data entry. By redistributing tasks that do not require an MD's training, physicians can spend more time on direct patient care and critical thinking. Studies have shown this approach can yield remarkable benefits. Along similar lines, the use of medical scribes—personnel who accompany the physician and type the encounter note in real time—has been associated with improved physician satisfaction, more face-to-face time with patients, and no loss of productivity. Such interventions affirm that doctors are not inherently burned out by documentation if it is handled in a team-based, efficient manner.

Looking forward, automation and artificial intelligence (AI) offer promising tools to further streamline workflows. Voice recognition software is already widely used to transcribe notes by speaking instead of typing, saving time. More recently, "ambient" AI scribe systems have emerged: these are devices or applications that listen

to the physician-patient conversation (with consent) and automatically generate a structured clinical note from it. Early reports suggest that these AI-driven assistants can dramatically reduce the documentation burden and allow physicians to fully focus on the patient during the visit (Shah et al., 2025). AI algorithms are also being applied to sort and triage the flood of inbox messages, so that a physician sees only the truly important notifications while routine inquiries are answered with protocol-driven replies or delegated to support staff. While still in nascent stages, such innovations could reclaim a significant portion of physicians' time that is currently lost to clerical chores. Importantly, technology alone is not a panacea—it must be implemented thoughtfully. A poorly designed AI tool could just as easily add frustration if it creates errors the doctor must fix. Thus, healthcare leaders emphasize combining these solutions with ongoing feedback and refinement.

In summary, tackling the administrative and EHR facet of burnout will require making the system work for the physician, not the other way around. This includes refining EHR usability through clinician-driven design, pruning superfluous documentation requirements, delegating non-essential tasks to team members, and embracing intelligent automation to ease workflow. Health systems that have invested in such changes are seeing tangible improvements in physician well-being (Sinsky et al., 2020). By reducing the daily "paperwork" slog, physicians can regain the cognitive bandwidth and human connection that make practicing medicine fulfilling—which is ultimately a boon to both doctors and their patients.

D. Workflow Optimization and Scheduling Systems

Algorithmic scheduling tools that incorporate artificial intelligence (AI) are increasingly used to optimize patient flow, appointment allocation, and clinical workload distribution within healthcare systems (Knight et al., 2023). Along with algorithmic scheduling tools, dashboards are now being integrated to track metrics and allow healthcare establishments to address patient scheduling issues (Helminski et al., 2022). Physicians in clinical settings may utilize scheduling tools that are implemented to improve efficiency when managing patient schedules. As a result, this decreases the burden on provider time and can increase patient satisfaction (Knight et al., 2023). When these efficient mechanisms are in place, the issues associated with patient scheduling will no longer lead to cognitive overload and rushed diagnoses. Particularly, due to the lack of appropriate times for psychosocial engagement. Often, these result in reduced physician autonomy, defensive documentation, and high turnover exacerbated by the fragmented care.

Physician burnout is prevalent internationally and is attributable to many drivers, which include excessive workloads, inefficient work processes, and loss of autonomy, among others (West et al., 2018). High patient volumes often result in rigid schedules due to inefficient work processes, which increase stress and contribute to burnout. The emotional exhaustion leaves physicians to offer less emotional engagement as a consequence of high patient volumes at the end of the day (West et al., 2018). The implications of this are evident in the high rate of physi-

cian turnover in the workplace. A significant correlation exists between feelings of burnout, reduced job satisfaction, and reduced satisfaction in the physician-patient relationship (West et al., 2018). Potential improvements in scheduling may help mitigate excessive workloads and loss of physician autonomy, contributing to more effective work processes.

Optimizing patient scheduling practices to incorporate flexibility and physician input will cultivate a more focused approach to patient health. Employing AI and machine learning (ML) in medical settings is an efficiency mechanism that coordinates numerous appointments to avoid lengthy wait times, bottlenecks, and overscheduling (Han et al., 2024). Studies show that AI and ML models can identify missed appointments, increase healthcare reimbursement by risk scoring, and identify the risk factors associated with no-shows (Knight et al., 2023). Schedules may be more practical with flexibility incorporated by avoiding these typical effects and generating a more balanced outcome. Subsequently, AI-optimization for healthcare scheduling remains a relatively new approach and is being increasingly implemented despite challenges that are due in part to uncertainty (Knight et al., 2023). However, these measures make workloads more manageable. Ultimately, physicians may feel less taxed by the excessive workloads and rigid schedules that lead to burnout.

3.3. Financial Stressors and Early Physicians

Pursuing a medical degree is a costly feat, with student debt up to $200,000 which can significantly impact the mental health of medical students and early-career physicians. Another factor compounding this financial burden is the increased interest rate on federal student loans which have increased from 5.3% in 2022 to 7.2% to 2024, potentially adding up to $24,000 in additional cost (Marzouk, 2024). Beyond mental health, debt has shown to influence career decisions. Higher levels of debt are associated with a greater likelihood of choosing a higher-paying specialty, with many students reporting that debt repayments discouraged them from primary care careers (Pisaniello et al., 2019). However, the relationship between debt and specialty choice remains complex. A retrospective study by Fritz et al. involving 1310 students at a public institution found no significant association between the amount of student debt and matched specialty. Notably, there was no correlation between debt and the average income of chosen specialties, nor were students with higher debt less likely to primary care (Fritz et al., 2019). These conflicting findings may reflect differences in study design, institutional context, and time period. Specialty choice may be influenced not only by absolute debt burden but also by perceived income stability, lifestyle considerations, and mentorship exposure during training. Additionally, evolving loan repayment programs and economic conditions may alter how medical students weigh financial pressures when selecting specialties.

Financial stress is a major contributor to physician burnout and career dissatisfaction. Verduzco-Gutierrez et al. found that among women physiatrists, greater

education debt was significantly associated with lower work-life satisfaction, increased burnout, and career regret. Burnout in this group was also linked to feeling undervalued at work and high administrative burden, particularly among those with greater debt and lower compensation (Verduzco-Gutierrez et al., 2025). Similarly, Doe et al. reported that educational debt exceeding $250,000 was associated with a higher likelihood of burnout among family medicine residents, reinforcing the burden that financial insecurity places on early medical trainees (Doe et al., 2024). Beyond residency, the effects begin as early as medical school. Students with debt over $100,000 had over 13 times the odds of experiencing high debt-related stress compared to peers with lower debt, with this stress contributing to career anxiety and consideration of taking leaves of absence (Yang et al., 2024). Unexpectedly, access to mental health resources and counseling did not appear to buffer the effects of debt-related stress. Collectively, these studies reveal that financial distress plays a significant role in shaping emotional health and career outcomes, with potential risk to long-term workforce sustainability and career fulfillment.

Given the impact of medical student debt on the well-being of new physicians, structured financial support programs are essential. A systematic review by Lin et al. identified multiple resident strategies to manage debt, including moonlight, reliance on income-driven repayment (IDR) plans, and participation in federal programs like Public Service Loan Forgiveness (PSLF) and military scholarships (Lin et al., 2023). However, current programs may not go far enough to address long-term workforce needs. Driesseen et al. proposed a value-based loan repayment model that continuously subsidizes debt based on specialty choice, rewarding physicians who enter high-need, lower-paying fields like primary care and geriatrics (Driessen et al., 2020). Separately, the Veterans Affairs (VA) MISSION Act established multiple initiatives to address physician shortages, including the Health Professions Scholarship Program (HPSP), the Specialty Education Loan Repayment Program (SELRP), and the Education Debt Reduction Program (EDRP). These programs offer up to $200,000 in loan repayment and have shown early promise in attracting physicians to underserved areas and primary care specialties (Byrne et al., 2022). These reforms and policy proposals represent important steps toward alleviating financial strain and supporting a more equitable physician workforce.

A. Consequences of Burnout on Patient Care

Increased medical errors and reduced quality of care.

The implications of burnout extend to undermine the foundational philosophy of the physician's oath to benefit patients and do no harm. In an environment where emotional exhaustion and depersonalization have become normalized, this oath is compromised by an increase in medical errors and the pressure physicians face to overperform. In a study by Shanafelt et al., an audit of 30-day postoperative mortality following over 7000 operations indicated that 12.6% of postoperative deaths were associated with medical errors (Shanafelt et al., 2010). Notably, more

than 70% of physicians attributed their errors to individual-level factors rather than systemic causes. Subsequent studies further suggest that the psychological consequences of self-blame and distress may perpetuate future errors. Burnout, in particular, is predictive of a decline in emotive and cognitive empathy, both of which are linked to increased odds of self-perceived errors. West et al. reported that each one-point increase in empathy was associated with a 9% decrease in the likelihood of committing a medical error in the following three months (West et al., 2006). This mutually reinforcing cycle, where a lack of confidence resulting from emotional distress leads to further errors, sets physicians up for a heightened risk of anxiety-provoking thoughts that become exceedingly difficult to break.

Depression is highly prevalent among residents nationwide, with ample studies correlating the stresses of resident training, sleep deprivation, and lack of time for self-care as contributing factors. West et al. found that depressed pediatric residents made more than six times as many medication errors per month compared to their non-depressed peers (West et al., 2006). Since depression is known to lead to emotional withdrawal, it has a profound impact on a physician's ability to meaningfully connect with pediatric patients. This is deleterious, as pediatric patients require a heightened level of therapeutic alliance to establish strong communication and trust in unfamiliar and often frightening environments.

Decreased patient satisfaction and trust.

The Agency for Healthcare Research and Quality (AHRQ) funded a study grant that highlighted that over 50% of primary care physicians felt burdened by time pressures in their work environment when conducting physical examinations (Agency for Healthcare Research and Quality, 2023). The below-average work conditions of time pressure and limited control were strongly linked to physician stress and burnout. Interestingly, the report indicated that these factors do not consistently correlate with the quality of patient care; however, it is important to note that there is a clear correlation between patient satisfaction and the amount of time spent with the physician during the appointment. Like et al. was one of the first to study determinants of patient satisfaction and found that all patients who were dissatisfied with their appointment attributed their dissatisfaction, in part, to wishing their physician had spent more time with them (Like & Zyzanski, 1987). This finding bridges a connection between physician burnout driven by structural workplace conditions and the resulting impact on patient satisfaction and continuity of care.

B. Organizational Costs

Financial impact of physician turnover and reduced productivity.

The financial impact of physician turnover is associated with negative clinical and organizational outcomes, placing a significant economic burden on the healthcare system. Physician turnover refers to the cost associated with replacing physicians and the loss of profit from unfilled positions. In 2019, Han et al. estimated that approximately $4.6 billion per year is attributed to physician turnover resulting from burnout in the United States (Shanafelt et al., 2019). Interestingly, the bur-

den of replacement costs, lost income, and reduced physician hours is higher among younger physicians (<55) and among those in primary care and surgical specialties. Although mental health awareness continues to reach new peaks, many younger physicians remain subject to the stigma surrounding help-seeking, driven by fear or judgment. When medical interns were surveyed about factors influencing their decision to seek help, 57% reported concerns about confidentiality and their image (Brower, 2021). The unfortunate behavior among many young physicians further contributes to a disconnect from their sense of purpose and autonomy, leading to a significant decline in professional productivity.

Economic modeling suggests that interventions aimed at reducing physician burnout may generate substantial financial returns for healthcare systems. For example, reducing physician turnover by even 10% could save millions annually in recruitment costs, lost productivity, and onboarding expenses (Brower, 2021). Similarly, improvements in workflow efficiency and reductions in administrative burden may increase physician retention and patient throughput, thereby improve overall system performance while lowering indirect costs associated with burnout-related errors and absenteeism.

The relationship between burnout and the downstream costs of malpractice claims must also be mentioned due to its debatable effect in the literature. Using Maslow's Hierarchy of burnout factors, Shapiro et al. made a significant finding that indemnity payments in malpractice cases were associated with burnout factors in nursing, surgery, and medicine, with payouts ranging from $234,000 to $300,000 (Shapiro & Paskavitz, 2024). Moreover, the direct incurred costs of just three healthcare lines totaled over $387 million in five years. Therefore, a vicious cycle remains, as burnout has the potential to reduce productivity, increase the risk of malpractice claims, and amplify the financial burden on healthcare systems. The emotional distress caused by malpractice often leads to decreased physician motivation, lower efficacy, and increased time off due to legal proceedings and stress, all of which contribute to further productivity loss.

Implications for healthcare system sustainability.

It is no surprise that the financial impact of physician burnout has the potential to reduce patient access to care. In a national cohort of 18,000 medical center-affiliated physicians, burnout and lack of professional fulfillment were strongly associated with an increased intent to leave the profession between 2019 and 2021 (Ligibel et al., 2023). Further complicating this issue is the projected shortage of 86,000 physicians by 2036, as estimated by the Association of American Medical Colleges. If physicians continue to leave the field, this will only exacerbate the crisis, especially in a healthcare landscape already strained by expanding patient demand.

Although the implementation of the Patient Protection and Affordable Care Act has successfully expanded medical access to those who need it most, it fails to account for the growing shortage of providers needed to deliver that care. In a society largely focused on legislative and regulatory hurdles in government fund-

ing, many fail to acknowledge the personal toll healthcare reform takes on physicians. As the demand for care continues to outpace the physician workforce, a failing system inevitably compromises multiple aspects of patient care.

These consequences are becoming more widely recognized, as physician shortages have the potential to create a negative feedback loop, where distressed physicians struggle with collaboration and teamwork in an increasingly strained professional climate (Shanafelt et al., 2019). This point is especially critical given that studies have shown that high-functioning organizational climates are better equipped to adapt to complex and evolving environments, which is essential for sustainability in healthcare (Lyubovnikova et al., 2018). If patient numbers continue to surpass physician availability in the years ahead, the resulting decline in effective teamwork may precipitate increased medical errors, higher patient mortality, and ultimately threaten the future integrity of the care environment.

C. Strategies for Systemic Improvement

Investing in physician well-being as a cost-saving measure.

The first step in investing in physician well-being should begin with ending the glorification of excessive self-sacrifice in medicine. Shapiro et al. predicted that the most effective way to address burnout is by prioritizing physicians' physical and mental health needs first, drawing from Maslow's hierarchy of needs at a systemic level. To meet physicians' most basic needs, suggested interventions include improving on-site access to healthy food and water, providing comfortable sleeping quarters, embedding mental health professionals, and offering private, sanitary spaces for breastfeeding mothers (Shapiro et al., 2019). When these foundational needs are met, higher-order interventions such as workplace resilience training become more effective and cost-efficient. Supporting this point, Cohen et al. also found that workplace interventions, such as mindfulness-based practices, gratitude journaling, and professional coaching, were associated with reduced rates of stress-related absenteeism (Cohen et al., 2023). This, in turn, consistently decreased the reliance on costly temporary staffing and helped reduce physician turnover, which, as previously discussed, remains one of the most significant financial burdens on healthcare organizations.

These efforts have shown success as Stanford Health became the first academic medical center in 2017 to appoint a Chief Wellness Officer dedicated to improving physician well-being and was awarded a gold medal by the AMA for implementing system-level changes that support physician health at work. Dr. Tait Shanafelt of Stanford adopted a model centered on personal resilience, aligning with Shapiro's hierarchy by emphasizing the importance of physicians caring for their physical well-being. This mindfulness-based approach is particularly important, as it underscores the link between burnout and the loss of self-compassion or perceived self-worth, factors that are closely tied to unmet basic physiological needs.

Redesigning workflows to enhance efficiency and satisfaction.

A large systematic review of literature published between 2007 and 2018 on organization-directed workplace interventions for physician burnout found that teamwork interventions had the highest proportion of studies reporting a positive

effect (DeChant et al., 2019). Notably, providing full-time clerical support for physicians' orders in primary care led to a drop in self-reported burnout from 43% to 14% over just four months (Contratto et al., 2017). Similarly, the use of scribes or medical assistants to handle EHR documentation was associated with improved survey scores in both professional fulfillment and practice satisfaction, key factors shown to reduce burnout. Optimizing task delegation, such as medication reconciliation, vaccinations, and EHR data entry, has been shown to reduce physician clinical overload (Linzer et al., 2015). Clinics that implemented this workflow changes experienced a greater reduction in burnout compared to control sites, with effects that surpassed those of communication-focused or traditional quality improvement initiatives. By reducing time pressure and administrative burdens, workflow restructuring allows physicians to focus more on meaningful clinical work, enhancing both job satisfaction and their sense of professional identity.

3.4. Policy and System-Level Strategies to Reduce Physician Burnout

1) Payment Reform and Performance Metrics

Combatting physician burnout and its economic implications is not an easy feat. However, several possible strategies have been put forth and investigated as potential solutions. One such solution is reassessing performance metrics, particularly shifting the focus from quantity to quality of care. Payment models focused on productivity over outcomes and quality have been shown to be associated with higher rates of burnout compared to salaried physicians (Friedberg et al., 2015). This method of payment means that higher patient volumes mean higher compensation, often driving physicians to overwork themselves putting them at risk of burnout. Not only do quantity reimbursement models encourage overworking, but they also create incentives for choosing more expensive treatments and procedures. A study looking at oncology treatment choices in relation to physicians' reimbursement models found that fee-for-service models did impact physician choice of chemotherapy in some instances (Mitchell et al., 2019). While physicians do have ethical standards with which to practice, it is unrealistic to expect physicians to be blind to potential financial incentives. Therefore, a shift from quantity to quality is necessary to combat both the mental and economic side effects of burnout. The best way to approach this kind of shift is by incorporating physician input in policy development. Physician input in policy development is not only important for creating realistic solutions; it can also be a tool to directly address a driver of burnout: lack of control. Swensen et al. (2016) theorize that physician input can address the psychological need for choice, shifting the mindset from "victim to an empowered partner" in healthcare policy, possibly reducing burnout.

2) Administrative and Regulatory Reform

Another realm for combatting physician burnout beyond payment models exists in the other business aspects of medicine: administrative burdens and clashes

with administrative bodies. As discussed earlier administrative burdens, especially those related to EHR, are a key driver of burnout. This highlights a need for streamlined regulations and requirements in order to reduce such burdens. Sinsky et al (2020) postulate that providing streamlined regulations of common work, such as required documentation/forms, can free up clinicians to spend their time on patients rather than paperwork, thus contributing to their professional satisfaction. However, the authors also warn that too much standardization can jeopardize the ability of physicians to tailor care to their individual patients, highlighting the need for the balance between streamlining protocols and ability to customize care plans. This further supports the need for physician input in policy development discussed previously. A pilot program at a healthcare system in Hawaii showed how physician input can help develop ways to reduce administrative burdens through their "Getting Rid of Stupid Stuff" program (Ashton, 2018). The program allowed providers to nominate things in the EHR they found to be unnecessary or poorly designed. The program was able to bring up inefficient charting issues to administrators directly from the physicians themselves, often leading to actionable opportunities for change. This collaboration between physicians and administrators in identifying problems highlights the need for regular communication between the groups in order to succeed in streamlining regulations and reducing administrative burdens on providers. However, to achieve such collaboration there needs to be transparency and accountability in healthcare management and administrators. To encourage such ideals, employing a chief wellness officer as well as sharing responsibility across leadership can help to ensure such initiatives are not forgotten (Sinsky et al., 2020). In order to succeed in combating the various facets of it is vital to keep communication open, honesty at the forefront and take accountability when issues arise.

3.5. Physician Advocacy and Leadership

With so many opportunities for change and pathways to take it can become overwhelming thinking of how to start and who to involve. This dilemma highlights the necessary role of professional organizations in promoting change as well as the need to empower physicians to take action themselves. Professional organizations often play major roles in advocating for various issues for physicians. Gajra et al (2020), postulate that such societies could play big roles in advocating on behalf of the physicians they represent to address issues such as simplifying the prior authorization process. Such advocacy shows potential for being a powerful tool in addressing physician burnout and promoting positive changes. These professional societies would not exist without the involvement of the individual physicians themselves, highlighting the need to encourage physician participation in advocacy. However, physicians face many barriers when it comes to getting involved in advocacy, including feeling unqualified, finding time and having concerns that the effort and involvement will produce real results (Rechtschaffen & Kapoor, 2021). Such barriers often discourage physician involvement and highlight

the need to further encourage the importance of advocacy. One way to reduce barriers would be to have organizational infrastructure in place for physicians who want to get involved, as is the case in many urological societies (Rechtschaffen & Kapoor, 2021). Having informational sessions and online information from professional societies could be a useful tool in getting individual physicians involved. Overall, without advocacy for change from both professional societies and individual physicians, key issues will be missed and opportunities to address burnout and its economic implications will fall flat.

4. Conclusion

Physician burnout is not simply a matter of personal resilience, but a measurable symptom of systemic dysfunction that prioritizes productivity metrics and cost containment over workforce sustainability and patient-centered care. Tools such as algorithmic scheduling and rigid EHR demands, while intended to improve efficiency, have diminished professional autonomy and eroded physicians' emotive and cognitive empathy, ultimately weakening the physician-patient relationship. Financial burdens, especially educational debt exceeding $200,000, weigh heavily on early-career physicians and are rarely alleviated by existing mental health resources, leading to dissatisfaction, burnout, and career regret. Physicians experiencing depression and burnout are more likely to make medical errors and experience disengagement, further fragmenting care. These consequences reverberate beyond the individual, threatening patient safety, driving malpractice costs, and fueling a national physician shortage that jeopardizes access and continuity of care. Systemic reforms are urgently needed to realign financial and administrative structures with the ethical and relational dimensions of medical practice. Empowering physicians through policy involvement, adjusting scheduling systems and EHR demands, and supporting the workforce with mental health resources are foundational strategies. As demonstrated in successful programs like Stanford's Chief Wellness Office and the VA's loan repayment incentives, institutional investment in physician health and wellness yields substantial gains in both clinician productivity and patient outcomes. Future research should further examine how systemic reforms, particularly payment restructuring, workflow redesign, and administrative simplification, affect physician well-being across different specialties and healthcare settings. Few studies have yet to explore how productivity-based compensation models specifically impact dermatologists' job satisfaction, how EHR requirements disrupt their workflow, and whether current burnout interventions designed for hospital or primary care settings are effective in the realm of dermatology. Future research should employ targeted methodologies that reflect dermatology's unique clinical structure. Doing so will not only support physician well-being but also preserve high standards of patient care within the specialty. Curating specialty-specific strategies is not just the next step, it is essential to reversing physician burnout, revitalizing the medical workforce, and restoring the human integrity of medical care.

Conflicts of Interest

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

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