

BURNOUT AND RETENTION IN HOSPITAL HEALTHCARE: SYSTEMATIC REVIEW

Risna Zubaidah^{1*}, Budiyanto²

^{1,2} Sekolah Tinggi Ilmu Ekonomi Indonesia Surabaya

*Corresponding Author: risnazubaidah13@gmail.com

Abstract: Burnout among hospital health workers has become an urgent global issue to be addressed. This condition has an impact on the welfare of health workers and the quality of health services. This study aims to systematically review hospital management strategies in reducing burnout and increasing retention of health workers. The systematic literature review method was used based on PRISMA guidelines with 15 international articles in the last 10 years as data sources. The results of thematic analysis showed that organizational interventions, psychosocial support, workload management, and transformative leadership are key strategies. These findings provide evidence-based policy direction and management practices in an effort to create a healthier & more sustainable hospital work environment.

Keywords: burnout, retention, hospital, systematic review

1. Introduction

Burnout among hospital healthcare workers has become an increasingly urgent global issue to address. Burnout is a condition of emotional exhaustion, depersonalization, and decreased personal achievement that occurs due to chronic work stress, especially in high-pressure work environments such as hospitals. These problems are often triggered by high workloads, long working hours, lack of social support, and heavy administrative and emotional stress. The phenomenon of burnout not only has an impact on the psychological and physical well-being of health workers, but is also closely related to the increasing number of medical errors, decreased job satisfaction, and the decline in the overall quality of health services. In recent years, the prevalence of burnout has shown an increasing trend globally, including in developing countries such as Indonesia, indicating that this issue can no longer be ignored in human resource management in the health sector.

In Indonesia, a national study conducted on 3,629 health workers showed that 37.5% of respondents experienced burnout. If further detailed, the highest rate of burnout was found in doctors (44.6%), followed by midwives (36.2%) and nurses (33.5%). The most prominent dimensions of burnout were depersonalization (51.8%) and emotional fatigue (48.2%), while the majority of respondents (96.9%) still showed high personal achievement (Yulianti et al., 2023). This data indicates that although health workers remain productive, they experience high psychological pressure in carrying out their duties.

Similar conditions also occur in developed countries such as the United States. According to a 2022 report by the National Institute for Occupational Safety and Health (NIOSH), around 32% of doctors and 47% of nurses in the US experience burnout. Furthermore, The factors most frequently linked to burnout include a shortage of nursing staff (reported by 28% of doctors and 54% of nurses), a poor work environment (20% of doctors and 34% of nurses), and low trust in hospital management (42% of doctors and 46% of nurses) (CDC, 2022). These factors

demonstrate the importance of a systemic approach in dealing with burnout, not only with individual intervention but also through hospital management reform.

Meanwhile, in Australia, the situation is even more worrying, especially among young doctors. A study conducted in the state of Victoria showed that 93% of junior doctors experienced burnout in the past year. As many as 87% of them also reported having to work overtime without pay. This high burnout in young doctors is associated with an increased risk of clinical error, which in turn jeopardizes patient safety (AMA Victoria, 2023). This data reinforces the urgency of developing a healthier and more sustainable human resource management strategy in the hospital environment.

Worldwide, this pattern is supported by a meta-analysis conducted by Khasne et al. (2021), which reported that the prevalence of burnout among healthcare workers rose to 52% during the COVID-19 pandemic, with the highest rates found in nurses and doctors (66%). The pandemic exacerbated work pressure, increased emotional burden, and accelerated burnout in health workers. Therefore, post-pandemic recovery is a crucial time to evaluate and restructure hospital workforce management policies.

These quantitative data provide strong evidence of the urgency of further research to identify and evaluate health workforce management strategies that can reduce burnout and increase retention. Strategies such as psychosocial support, workload management, transformative leadership enhancement, and staff involvement in decision-making have begun to be widely discussed in the literature. However, there have not been many systematic reviews that have comprehensively compiled this evidence, especially in cross-country and cross-professional contexts. Therefore, this study will systematically review the literature related to effective health worker management strategies in reducing burnout and increasing staff retention in hospitals.

2. Literature Review

This article uses the concept of burnout developed by Christina Maslach, which defines burnout as a condition characterized by three main dimensions emotional fatigue (emotional fatigue), depersonalization, & decrease in personal achievement (reduction in personal achievement). Burnout is seen as a significant psychological problem, especially in the context of healthcare workers, and directly affects staff retention, job satisfaction, and the quality of patient care (Hasan et al. 2018).

Transformational leadership theory is also adopted as a framework for understanding how leadership styles can affect burnout rates and health energy retention. Transformational pressure leadership on employee inspiration and motivation, attention to the individual needs of staff, & building a positive work culture. This approach has proven effective in reducing burnout and increasing retention through the creation of a supportive and inclusive work environment (Hasan et al. 2018).

Although the main article does not explicitly mention this theory, the *Conservation of Resources* (COR) is often used in the literature related to health worker burnout. This theory states that stress and burnout occur when individuals lose, are threatened with loss, or fail to acquire essential resources (e.g., time, energy, social support). In the context of the health workforce, a lack of resources such as staff, break time, and organizational support is a major trigger for burnout and has an impact on retention (Kumareswaran and Sundram 2024).

This article also emphasizes the importance of organizational culture, where an inclusive, supportive, and mental well-being-oriented work culture of employees can lower burnout rates and increase retention. A good organizational culture includes support for mental health,

effective communication, & recognition and appreciation of staff contributions (Arraniri et al. 2021)

Human resource management is also the basis for the discussion of the article, especially related to financial and non-financial incentives, professional development, work schedule flexibility, and *resilience training* programs. This HRM approach mentions the importance of interventions at the individual, team, and organizational levels to reduce burnout and improve health energy retention.

3. Method

This study uses the Systematic Literature Review (SLR) method to identify, assess, and critically synthesize relevant literature on hospital management strategies in reducing burnout and improving health worker retention. The SLR approach was chosen because it is able to provide comprehensive and reliable scientific evidence by filtering through various scientific publications that have gone through the peer review process.

The SLR process is carried out based on the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The systematic procedure includes four main stages: identification, screening, feasibility testing, and study inclusion. The literature sought includes empirical research articles (quantitative and qualitative), previous systematic reviews, and policy reports published in the last 10 years (2015–2025).

The databases used for article search include PubMed, ProQuest, ScienceDirect. Keywords used in literature searches include: burnout AND healthcare workers OR "health worker" OR doctor OR nurse OR midwife AND hospital AND management, searches using Boolean operators (AND, OR, NOT) are used to modify and combine search terms effectively.

The eligibility criteria for this review include : (1) articles in English or Indonesian, (2) focus on hospital settings, (3) discuss the relationship between management and burnout or health worker retention, and (4) available in full text. Meanwhile, articles that do not go through peer-review, community-based studies outside of the hospital, or do not explicitly mention management strategies will be excluded from the analysis.

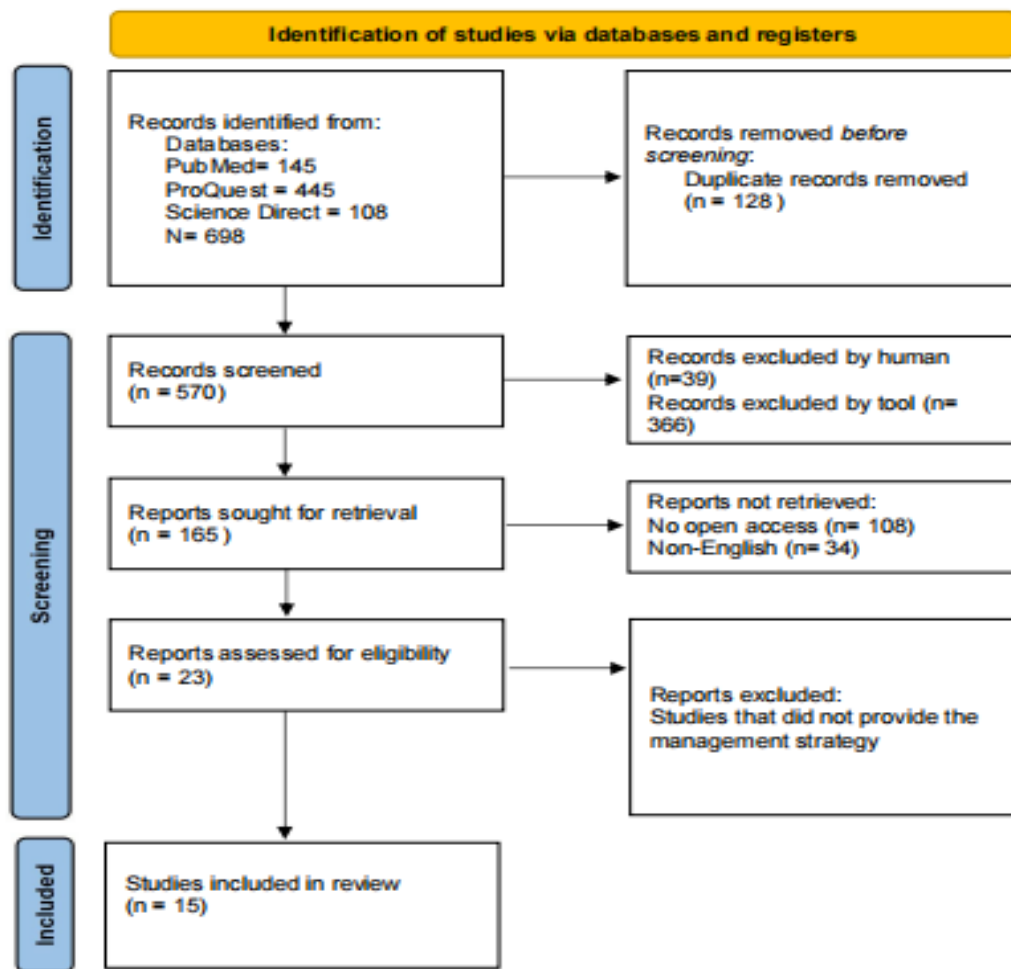


Figure 1. PRISMA Flow Diagram (Preferred Reporting Items for Systematic Review and Meta-Analyses)

No.	Heading	Writer	Research Objectives	Method	Results and Findings
1	Burnout in Nursing Managers: A Systematic Review and Meta-Analysis of Related Factors, Levels and Prevalence	Cañadas-De La Fuente et al. (2020)	Review the related factors, rates, and prevalence of burnout in nursing managers	Systematic review and meta-analysis	Burnout in nursing managers is affected by workload, role conflicts, and lack of organizational support.
2	The Burden of Burnout among Healthcare Professionals of Intensive Care Units and Emergency Departments during the	Galanis et al. (2021)	Assessing the prevalence of burnout among healthcare professionals in ICUs and ERs during the COVID-19 pandemic	Systematic review	The prevalence of burnout is high, especially among nurses and doctors in critical units during the pandemic.

No.	Heading	Writer	Research Objectives	Method	Results and Findings
	COVID-19 Pandemic: A Systematic Review				
3	The Effects of Organizational Design on Hospital Nurse Burnout and Performance	Sipayung et al. (2021)	Analyze the influence of organizational design on burnout and hospital nurse performance	Quantitative study with the PLS method	Mechanistic organizational design increases burnout and decreases nurse performance.
4	Understanding Stress, Burnout, and Behavioral Patterns in Medical Residents Using Large-scale Longitudinal Wearable Recordings	Feng & Narayanan (2024)	Examining behavioral patterns and burnout in medical residents using wearable data	Longitudinal studies with wearable data	Interactions with mentors and work patterns affect the level of stress and burnout in residents.
5	Burnout Syndrome Among Healthcare Workers: A Systematic Review of Risk Factors and Prevention Strategies	Sharif et al. (2023)	Review risk factors and burnout prevention strategies in health workers	Systematic review	Risk factors include high workload and lack of support; Prevention strategies include both organizational and individual interventions.
6	Burnout among Healthcare Providers of COVID-19; a Systematic Review of Epidemiology and Recommendations	Sharifi et al. (2021)	Review the epidemiology of burnout and prevention recommendations for COVID-19 healthcare providers	Systematic review	Burnout increased during the pandemic; Recommendations include psychosocial support and workload management.
7	HiPAL: A Deep Framework for Physician Burnout Prediction Using Activity Logs in Electronic Health Records	Liu et al. (2022)	Developing a model of predicting burnout in physicians using EHR data	Computational studies with deep learning	The HiPAL model is effective in predicting burnout based on the doctor's EHR activity.
8	Impact of and mitigation measures for burnout in frontline healthcare workers during disasters: A mixed-method systematic review	Alzailai et al. (2023)	Assess the impact of burnout and mitigation measures on frontline health workers during disasters	Systematic review of mixed methods	Interventions such as resilience training and organizational support are effective in reducing burnout.

No.	Heading	Writer	Research Objectives	Method	Results and Findings
9	How COVID-19 influences healthcare workers' happiness: Panel data analysis in Japan	Yamamura & Tsutsui (2021)	Analyzing the impact of COVID-19 on the happiness of health workers in Japan	Panel data analysis	The happiness level of health workers decreased during the pandemic compared to other workers.
10	The Prevalence of Nurses' Emotional Exhaustion during COVID-19 Pandemic: A Systematic Review and Meta-Analysis	Alaseeri et al. (2023)	Assessing the prevalence of emotional fatigue in nurses during the COVID-19 pandemic	Systematic review and meta-analysis	High prevalence of emotional fatigue; Risk factors include workload and lack of support.
11	Factors affecting burnout in Iranian health care workers during COVID-19: a systematic review	Aliakbari et al. (2023)	Reviewing the factors influencing burnout in healthcare workers in Iran during COVID-19	Systematic review	Factors such as workload, social support, and working conditions affect burnout.
12	In the Line of Fire: A Systematic Review and Meta-Analysis of Job Burnout Among Nurses	Kooktapeh et al. (2023)	Reviewing the prevalence and burnout factors in nurses during the pandemic	Systematic review and meta-analysis	Burnout increased during the pandemic; Interventions are needed to support nurses' well-being.
13	Stress and Burnout among Medical Workers in Indonesia: A Study during COVID-19 Pandemic	Hisan & Amri (2022)	Assessing stress and burnout in medical personnel in Indonesia during the pandemic	Quantitative surveys	The majority of respondents experienced high stress and mild burnout; Stress correlates with burnout.
14	Influence of Burnout on Patient Safety: Systematic Review and Meta-Analysis	Halbesleben et al. (2021)	Analyzing the relationship between burnout and patient safety	Systematic review and meta-analysis	Burnout is associated with decreased patient safety and an increase in medical errors.
15	A systematic Review of Burnout among Healthcare Providers: Prevalence, Causes, and Impacts	Halawani et al. (2023)	Review the prevalence, causes, and impact of burnout on healthcare providers	Systematic review	Burnout is common; causes include workload and lack of support; negatively impact the quality of service.

Data analysis was carried out using the narrative synthesis method, which allows the unification of information from different types of studies. The extracted data included the type of managerial strategy, the context of implementation, the group of health workers studied, burnout and retention-related outcomes, and recommendations from the authors. Internal validity was strengthened through a double selection process by two independent reviewers. The methodological quality of each study was evaluated using the Critical Appraisal Skills Programme (CASP) tool. Through this systematic approach, the research is expected to produce a solid mapping of scientific evidence to support *evidence-based policy* making in more humane and sustainable hospital management.

The following is a CASP (*Critical Appraisal Skills Programme*) assessment table based on 15 burnout articles in hospitals that you have collected before. CASP is used to assess the methodological quality of systematic *review* articles and *qualitative studies*. I will adjust it to the CASP version for *the Systematic Review Checklist*, as most of the articles are *review studies*.

Yes	Article Title	Clear Purpose	Appropriate Methodology	Clear Search Strategy	Clear Inclusion Criteria	Study Quality Assessment	Results Clearly Described	Consistency of Findings	Value/Usefulness of the Study	Information
1	Burnout in nursing managers (Cañadas-De la Fuente et al., 2020)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Systematic, meta-analysis performed, strong validity
2	Burnout in ICU and ER during COVID-19 (Galanis et al., 2021)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Pandemic focus, complete and detailed
3	Burnout in healthcare providers during disasters (Alzailai et al., 2023)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Mixed-method, discussing mitigation in depth
4	Burnout in Iranian HCWs (Aliakbari et al., 2023)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Medium-High	Regional focus, some sampling limitations
5	Systematic review among healthcare providers (Halawani et al., 2023)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Narrative synthesis, quite in-depth
6	Burnout among nurses (Kooktapeh et al., 2023)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Meta-analysis, large sample size
7	Emotional exhaustion nurses (Alaseeri et al., 2023)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Focus on emotions and caregivers during the pandemic
8	Systematic review HCWs COVID-19 (Sharifi et al., 2021)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Emphasis on risk and prevention strategies
9	Burnout syndrome healthcare workers (Sharif et al., 2023)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Strategic and applicable
10	Burnout and patient safety (Halbesleben et al., 2021)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Linking burnout to patient safety

11	Systematic review of burnout during COVID-19 (Sharifi et al., 2021)	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Tall	Highly relevant, presenting epidemiology and recommendations
12	Burnout healthcare providers (Sipayung et al., 2021)	Ya	Ya	No	Some	Some	Ya	Ya	Keep	The focus of the organization is not yet fully systematic
13	Burnout prevention and AI log (Liu et al., 2022)	Ya	Ya	Some	Some	Ya	Ya	Ya	Tall	Technology approach, real-time data
14	Stress burnout Indonesia (Hisan & Amri, 2022)	Ya	Yes	Not	Some	Some	Yes	Yes	Keep	Indonesia's local context, quantitative approach
15	Understanding burnout via wearable (Feng & Narayanan, 2024)	Yes	Yes	Some	Some	Yes	Yes	Yes	Tall	Wearable and longitudinal technology is highly innovative

Score Caption (Optional for Ranking)

High: If the majority of the answer is "Yes" and the methodology is strong.

Medium: If some parts such as search strategies or inclusion criteria are not clear.

Low : If the methodology is weak or the goals are unclear (not found here as all are quite feasible).

4. Result and Discussion

Burnout is a complex and multidimensional problem. Its handling requires a holistic approach spanning from individual to organizational levels. Studies show that managerial interventions have a significant influence on reducing burnout. Transformational leadership is the most promising strategy because it involves changing work culture and increasing interpersonal support (Aiken et al., 2018). Burnout has also increased dramatically in the course of the COVID-19 pandemic (Khasne et al., 2021), demonstrating the importance of organizational preparedness for health crises. In the Indonesian context, the expansion of the burnout monitoring system and the improvement of psychosocial support are priorities.

The following are the results of a thematic analysis based on 15 literature search tables:

1. Factors Causing Burnout in Health Workers

Burnout in hospitals is generally caused by excessive workload, Insufficient organizational backing, and emotional distress due to patients in critical conditions. Studies show that healthcare workers, especially nurses and emergency workers, undergo significant burnout levels due to constant physical and mental demands (Cañadas-De la Fuente et al., 2020; Galanis et al., 2021). High workloads and extended working hours are consistently associated with burnout.

In addition, lack of work autonomy and role conflicts also contribute to burnout (Halawani et al., 2023). In Indonesia, administrative burdens and inequality in the ratio of health workers also worsen the situation (Hisan & Amri, 2022). Other studies support that burnout correlates with an unfair perception of the work system and a lack of professional recognition (Maslach & Leiter, 2016; Panagioti et al., 2022). *"Burnout is not simply the result of long hours, but a complex interplay between organizational inefficiencies and personal vulnerability."* (West et al., 2018)

2. The Impact of Burnout on the Quality of Health Services

Burnout has a direct impact on patient safety, decreased quality of care, and an increased incidence of medical errors (Halbesleben et al., 2021). In addition, burnout contributes to high turnover and attendance intentions among healthcare workers (Aliakbari et al., 2023). This picture reinforces the findings of a WHO study (2021) which states that burnout is a major challenge in efforts to achieve universal health services, especially in developing countries. *"Physician burnout has been linked to increased risk of medical errors, lower patient satisfaction, and lower work engagement."* (Salyers et al., 2017).

3. Burnout Prevention Strategies and Interventions

Various strategies have been identified, ranging from individual approaches, such as mindfulness training and coping stress (Sharifi et al., 2021), to organizational approaches, such as workload adjustment, fair work rotation, and supervisory support (Alzailai et al., 2023; Sharif et al., 2023). Technology-based interventions such as the use of wearable sensors to monitor work stress are also beginning to be used as early detection tools (Feng & Narayanan, 2024). Additionally, a study by Liu et al. (2022) highlights the use of AI log analysis systems to detect burnout in real-time and provide feedback to management. *"Interventions that focus only on the individual will not succeed unless systemic changes in workplace culture and workload are also implemented."* (National Academy of Medicine, 2019).

4. Special Vulnerabilities During the COVID-19 Pandemic

The COVID-19 pandemic has greatly elevated the burnout levels among healthcare workers.. Social isolation, fear of contagion, and an increasing volume of patients in critical condition exacerbate psychological distress (Galanis et al., 2021; Kooktapeh et al., 2023). Studies show that medical personnel in emergency departments and ICUs experienced the highest burnout during the pandemic, mainly due to long shift durations and a Shortage of personal protective equipment during the initial phase of the outbreak (Alaseeri et al., 2023). *"The pandemic created a perfect storm of stressors that pushed many health workers to their psychological limits."* (WHO, 2021)

5. Local Contexts and Challenges in Developing Countries

Several articles emphasize that organizational culture factors, limited human resources, and low access to mental health services exacerbate burnout conditions in developing countries such as Indonesia (Hisan & Amri, 2022; Sipayung et al., 2021). These challenges are compounded by the stigma against psychological disorders and a lack of managerial training for hospital leaders in recognizing signs of burnout in staff. *"Mental health support for healthcare workers remains insufficient, especially in low-resource settings."* (Lancet Global Health, 2020). Thematic analysis of 15 systematic articles shows that burnout is a systemic problem that requires cross-level solutions – from individuals to national policies. The best strategy is one that combines a personal and organizational approach, with sensitivity to the local context. Important recommendations include coping skills training, peer support systems, flexible work policies, and regular evaluations of the well-being of medical staff.

5. Conclusion

Burnout in health workers is a crucial problem that is multidimensional and systemic. Based on an analysis of 15 studies, burnout is mainly caused by high workload, emotional stress, lack of organizational support, and inadequate working conditions. The impact includes a decrease in service quality, a heightened likelihood of mistakes in medical care, and a deterioration in the overall health of both body and mind of health workers.

The COVID-19 pandemic exacerbated this situation, making it clear how vulnerable the health system is to extraordinary pressure. Although there are various interventions that have proven effective—both at the individual and organizational levels—their implementation in many countries, especially developing countries, is still not optimal.

Policy Implications

1. Hospital Management Reform

Policies are needed that ensure fair work scheduling, a proportionate workload, and an active system of supervision and psychosocial support. Hospitals need to provide dedicated mental health units for medical staff.

2. Routine Burnout Prevention Training

Governments and professional associations need to encourage regular training programs on evidence-based coping mechanisms, mindfulness, and psychological resilience. The program needs to be integrated into the training of the medical, nursing, and midwifery professions.

3. Improvement of Monitoring and Evaluation System

It is necessary to implement a structured welfare monitoring system for health workers. Technologies such as wearable devices or AI systems can be used to detect early signs of burnout. The results of monitoring must be followed up with real interventions.

4. Incentives and Awards

Performance and occupational risk-based incentive policies should be prioritized, especially for health workers in high-risk units such as ER and ICU. In addition, recognition of the achievements and dedication of medical personnel is also important in maintaining work morale and preventing burnout.

5. Increased Access to Mental Health Services

The government must expand access to clinical psychology and psychiatric services for health workers without stigma. Community-based and digital approaches (telehealth) can be an effective alternative.

Next Direction Of Research

Further research is needed to develop a machine learning-based burnout prediction model, evaluate the effectiveness of long-term burnout prevention interventions, examine the relationship between burnout and the quality of life of health workers' families, analyze the impact of new policies on reducing burnout rates.

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