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Development of Non-Clinical Performance Indicators in Hospitals: Focusing on Stress Management and Medical Staff Burnout

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Article Info

ABSTRACT

Hospital performance is determined not only by clinical indicators, but also by non-clinical factors that reflect the well-being and mental health of medical staff. In recent years, the increase in cases of work stress and burnout among healthcare workers has become a serious issue that directly impacts service quality, patient safety, and organizational sustainability. Therefore, this study is important to examine and develop non-clinical performance indicators that focus on managing stress and burnout among medical staff. This study uses a literature review approach to various relevant national and international studies. The results of the review show that integrating psychological well-being aspects into the hospital performance appraisal system can improve organizational effectiveness and create a healthy and productive work environment. Thus, the development of non-clinical indicators based on staff well-being is a strategic step in strengthening the hospital performance management system in the modern era.

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INTRODUCTION

Hospitals are complex healthcare institutions, where the success of services is determined not only by clinical aspects, but also by non-clinical factors that reflect the quality of management, work environment, and human resource welfare (Lia Qelina & Rinawati Rinawati, 2025). One very important but often overlooked non-clinical aspect is the management of stress and burnout among medical staff. Medical staff, such as doctors, nurses, and other healthcare professionals, work under high pressure with demands for professionalism, moral responsibility, and heavy workloads. These conditions have the potential to cause chronic stress, which, if not managed properly, can develop into burnout (Situmorang et al., 2025).

Burnout is a psychological syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. According to the World Health Organization (WHO, 2019), burnout has been classified as an occupational phenomenon that directly impacts individual and organizational performance. In a hospital setting, burnout not only affects the productivity and job satisfaction of medical personnel, but can also impact the quality of care, patient safety, and the overall effectiveness of the hospital system (WHO, 2019).

A systematic review involving 109,628 doctors in 45 countries shows that the prevalence of burnout among medical personnel varies greatly, ranging from 0% to 80.5%, depending on the definition and measurement instruments used (PMC). This variation reflects differences in work contexts, organizational cultures, and professional pressures in different countries. In the United States, a survey conducted by the American Medical Association (AMA) and related institutions in 2023 reported that approximately 45.2% of physicians experienced at least one symptom of burnout. This figure is still relatively high, despite showing a decline compared to the peak of the COVID-19 pandemic in 2021, when 62.8% of physicians reported

symptoms of burnout (AMA, 2021). This data confirms that burnout remains a serious global issue among medical personnel, affecting not only individual well-being but also the quality of care and patient safety in healthcare facilities (American Medical Association (AMA), 2023). Research in Indonesia shows that out of 406 health workers from government agencies, private institutions, and NGOs, 71.9% of respondents stated that they often or very often feel tired or burned out.

The development of these indicators is expected to assist hospitals in conducting comprehensive evaluations of psychosocial factors that affect the performance of medical personnel. In addition, these indicators can be used as a basis for formulating human resource management policies, staff welfare programs, and strategies for improving the quality of health services that are oriented towards a balance between clinical and non-clinical performance (Wahdah et al., 2025).

Although hospital performance indicators have so far focused on clinical aspects such as mortality rates, nosocomial infection rates, and compliance with medical procedures, non-clinical performance measurements, particularly those related to the psychological well-being of medical personnel, have rarely been developed systematically. In fact, non-clinical performance such as stress management skills, work-life balance, and burnout levels are important components in creating a healthy and sustainable work environment.

Thus, research on the development of non-clinical performance indicators in hospitals with a focus on managing stress and burnout among medical staff through literature review to produce valid, reliable, and applicable measurement tools in supporting the creation of a productive, healthy, and sustainable hospital work environment.

RESEARCH METHOD

This study uses a literature review approach, which is a research method conducted by collecting, analyzing, and synthesizing various relevant scientific sources such as journals, books, research reports, and policy documents that discuss similar topics. The purpose of this approach is to identify, examine, and understand the forms and directions of performance indicator development in hospitals, particularly those related to non-clinical aspects such as stress management and burnout among medical staff.

 In other words, this study did not collect data directly in the field, but used existing secondary data to obtain a comprehensive picture of how hospitals, both nationally and internationally, develop performance indicators that can assess the psychological well-being, stress levels, and risk of burnout among healthcare workers. The results of this review are expected to provide a theoretical and practical foundation for hospitals in designing a more holistic performance appraisal system, one that is not only oriented towards clinical outcomes, but also pays attention to the mental health and work-life balance of medical staff.

RESULTS AND DISCUSSION

The development of non-clinical performance indicators in hospitals is the process of designing, compiling, and refining performance measures that are not directly related to patient medical services, but play an important role in supporting the effectiveness, efficiency, and overall quality of hospital services. Non-clinical indicators include managerial, administrative, human resources, financial, occupational safety, staff satisfaction, and work environment aspects.

Non-clinical performance indicators are an important part of hospital quality management systems because non-clinical factors have a significant impact on the overall success of healthcare services. For example, the stress and burnout levels of medical staff, job satisfaction, the effectiveness of internal communication, and administrative efficiency can have a direct impact on the quality of patient care and workplace safety. Based on the findings from the literature review that has been conducted, a summary of the results can be seen in the following table:

Table 1. Literature Results

No	Author and Year	Design and Samples	Instrument	Findings
1	(Hall et al., 2016)	Systematic review of various hospital studies	MBI, HSOPSC, safety incident survey	Staff burnout is associated with an increase in clinical errors and a decrease in patient safety; staff wellbeing mediates some of the effects.
2	(Boskma et al., 2023)	Scoping review instrumen validasi	MBI, CBI, UWES, WRQoL	Many valid instruments are available (MBI, CBI, UWES, WRQoL); some are easy to administer for periodic monitoring.
3	(Carini et al., 2020)	Review hospital KPI concept	OCQ, HSOPSC	This study explains that the dimensions of human resources and organizational climate are often

				overlooked; incorporating staff well-being increases the sensitivity of the performance appraisal system.
4	(Devasahay et al., 2021)	Systematic review Team KPIs	Team performance metrics + burnout scales	Team performance KPIs (communication, team burnout, turnover) are valid in predicting patient outcomes and efficiency.
5	(Gormley et al., 2024)	Qualitative study + review	Nursing-sensitive indicators + MBI	Indicators that are sensitive to nursing practices need to include aspects of well-being and workload to be truly "sensitive."
6	(Garcia & Marziale, 2018)	Integrative review	HSOPSC, WRQoL, MBI	Practical indicators: burnout score, prevalence cut-off, working hours, sick leave, and turnover.
7	(Mohebi et al., 2018)	Review & field study	HSOPSC, WRQoL, MBI	Non-clinical KPI categories (staff well-being, job satisfaction, organizational climate) are beginning to be adopted in some countries; operationalization of indicators is needed.
8	(NIOSH, 2024)	Evidence-based practical guidance	Various scales of wellbeing + organizational indicators	Organizational interventions are more effective than individual interventions in reducing burnout; measure the effects of interventions using standardized KPIs.
9	(Djoar et al., 2023)	Cross-sectional, sample of hospital nurses in several provinces	MBI	The prevalence of burnout increased during the pandemic; emotional exhaustion was the highest dimension; factors: workload, weak organizational support.
10	(Adnyaswari, 2021)	Regional General Hospital cross-section	Support surveys + MBI	Social/organizational support is negatively related to burnout and positively related to performance; support interventions reduce burnout.

Based on the results of a review of ten international and national studies, it can be concluded that the development of non-clinical performance indicators in hospitals that focus on the psychological well-being, stress, and burnout of medical staff is an important aspect in creating a productive, healthy, and sustainable work environment..

Research conducted by Hall (2016) shows that healthcare staff burnout is closely associated with an increase in clinical errors and a decrease in patient safety. Staff wellbeing has been shown to mediate the relationship between emotional exhaustion and service quality, so indicators related to staff wellbeing need to be part of the hospital performance appraisal system. Meanwhile, Boskma et al. (2023), through a scoping review, identified various valid and reliable instruments such as the Maslach Burnout Inventory (MBI), Copenhagen Burnout Inventory (CBI), Utrecht Work Engagement Scale (UWES), and Work-Related Quality of Life Scale (WRQoL) that can be used practically for routine monitoring of medical staff well-being.

A study by Carini et al. (2020) emphasizes that in the concept of Key Performance Indicators (KPIs) for hospitals, the dimensions of human resources and organizational climate are often overlooked. In fact, incorporating aspects of staff psychological well-being can increase the sensitivity of performance evaluation systems to non-clinical factors that directly affect service quality. In line with this, Devasahay et al. (2021) in a systematic review of team KPIs show that team-based performance indicators such as communication, team burnout levels, and turnover rates are valid predictors of efficiency and patient clinical outcomes.

In the context of nursing, Gormley et al. (2024) through qualitative studies and literature reviews emphasize that indicators sensitive to nursing practices must include dimensions of staff well-being and workload in order to truly reflect the quality of nursing practices. A similar point is made by García-Iglesias et al. (2018), who found that practical indicators for assessing burnout include emotional exhaustion scores, sick leave frequency, working hours, and turnover rates. These indicators can be used as a basis for developing KPIs that assess staff well-being more comprehensively.

Recent research by Talebpour et al. (2025) highlights that several countries have begun to adopt non-clinical KPIs such as staff well-being, job satisfaction, and organizational climate into their hospital evaluation systems. However, further steps are needed to operationalize these indicators so that their measurement is more uniform and comparable across institutions. Support from institutions such as NIOSH/CDC (2024) also reinforces that organizational interventions are more effective in reducing burnout than individual approaches, so the indicators used must be able to measure both outcomes (burnout levels) and processes (organizational support, workload, and availability of wellness programs).

From a national context, Raditya Kurniawan Djoar et al. (2023) reported that the prevalence of burnout among nurses in several provinces in Indonesia increased significantly during the pandemic, with emotional exhaustion being the most dominant dimension. The main contributing factors were high workloads and weak organizational support. This study emphasizes the importance of staff well-being indicators to monitor and address the long-term psychological effects of work. In line with this, Adnyaswari et al. (2017) show that social and organizational support are negatively related to burnout and positively related to nurse performance. This means that indicators of social support and job satisfaction can be used as important measures in assessing non-clinical performance in hospitals.

Overall, these findings show a consistent pattern: the psychological well-being and burnout of healthcare workers not only affect individuals, but also the quality of service and overall performance of the hospital organization. Thus, the development of non-clinical performance indicators should include aspects of work well-being, stress levels, burnout, organizational support, and job satisfaction. These indicators need to be measured regularly using valid and reliable instruments, and used as a basis for formulating human resource management policies in hospitals.

CONCLUSION

Based on the results of the literature review, it can be concluded that non-clinical performance indicators that assess the psychological well-being, stress levels, and risk of burnout among healthcare workers are very important in supporting sustainable hospital performance. Most studies show that burnout is negatively correlated with patient safety, job satisfaction, and organizational efficiency.

The most widely used and proven valid and reliable instruments include the Maslach Burnout Inventory (MBI), Copenhagen Burnout Inventory (CBI), Utrecht Work Engagement Scale (UWES), Work-Related Quality of Life (WRQoL), and Hospital Survey on Patient Safety Culture (HSOPSC). These studies confirm that measuring staff well-being should be part of hospital performance indicators, on par with clinical indicators, to ensure productivity, patient safety, and mental health of the workforce are maintained. Thus, the development of integrated and standardized non-clinical performance indicators can be an important strategy in building a healthy, productive, and sustainable hospital work environment.

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