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National Strategy for Managing Burnout in Healthcare Workers through the Implementation of the TCL Model as a Hospital Team Management System

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Abstract. Burnout among healthcare workers is a growing issue that directly affects service quality, patient safety, and the well-being of medical staff. Contributing factors include high workloads, lack of team support, and poor work environments. Despite various training programs like TeamSTEPPS, CRM, and Lean Healthcare, these approaches remain isolated and ineffective without integration. To address this, a national strategy integrating these models through the Team-Centered Leadership (TCL) approach is recommended. TCL focuses on team communication, resource management, and work efficiency to create a collaborative and supportive work environment. A study at Bhakti Asih General Hospital revealed that high mental and physical workloads significantly contribute to burnout, leading to decreased nurse performance. Key policy recommendations include establishing a TCL-based framework for hospitals, mandatory training for hospital leaders, and developing an integrated system for monitoring burnout and team welfare. By implementing this integrated management approach, hospitals can improve communication, reduce workload pressure, and promote a healthy work-life balance, ultimately enhancing both worker well-being and patient safety. Implementing TCL could transform Indonesia's healthcare system into a more resilient and sustainable model.
Keywords: burnout, healthcare workers, hospital management, work-life balance.

1 Introduction

Burnout among healthcare workers has become a global strategic issue because it directly impacts service quality, patient safety, and the well-being of medical personnel. In the 11th revision of the International Classification of Diseases (ICD-11), the WHO defines burnout as a work-related phenomenon resulting from unmanaged chronic stress, characterized by three dimensions: emotional exhaustion, depersonalization, and reduced professional efficacy [1].

The WHO report, Our Duty of Care states that the global prevalence of burnout among healthcare workers is in the range of 41–52%, with the highest proportion among female healthcare workers (67%). Recent data from WHO reveals that 25% of healthcare workers report symptoms of mental health problems such as burnout, anxiety, and depression [1]. A meta-analysis of 113 studies in 49 countries showed a prevalence of burnout among nurses of 11.23%, with variations depending on location and field of specialization [2]. A study also reported a burnout prevalence of 57.3% among anesthesiologists, anesthesiology technicians, and ICU nurses in Palestine, based on the Maslach Burnout Inventory - Human Services Survey for Medical Personnel (MBI HSS MP) instrument [3]. The highest scores were found in the dimensions of emotional exhaustion (EE) and depersonalization (DP).

In Indonesia, these phenomena are also alarming. The Indonesian Health Survey 2023 recorded that 630,827 people aged ≥15 years experienced mental health disorders, including burnout [4]. A study found that 37.5% of healthcare workers experienced burnout, with the highest prevalence on the island of Java (38.4%), particularly among hospital staff (28.6%) [5]. A regional study in Southeast Asia even showed that the prevalence of burnout in Indonesia reached 62.91% [6].

Common contributing factors include excessive workload, lack of communication skills, weak team management, and an unsupportive work environment [7].

Burnout among medical personnel has a wide-ranging impact, from decreased team performance and increased risk of medical errors to decreased patient safety. Reports from the Annual Quality and Safety Review System and Sentinel Event Data confirm that communication problems and weak teamwork are the main causes of sentinel events [8,9].

To address these challenges, several team training approaches have proven effective, including the Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) method to improve interprofessional communication and coordination, the Crew Resource Management (CRM) method to strengthen human resource management and decision-making in emergency situations, and the Lean Healthcare method to optimize workflows, reduce waste, and improve efficiency.

One of communication and team management training-based intervention model has been shown to help reduce psychological stress and improve interprofessional coordination. Leadership, situational awareness, mutual support, and effective communication are four fundamental team collaboration skills identified by TeamSTEPPS as trainable skills [8]. Communication problems between professionals are one of the main causes of errors and accidents in various industrial sectors, including healthcare. To address this, a human factors training approach known as Crew Resource Management (CRM) was developed. According to CRM is simulation-based team training that aims to reduce human error in emergency situations and to improve patient safety by improving non-technical skills [9].

Over time, CRM principles have been adapted to various high-risk fields such as the military, firefighting, the nuclear industry, and emergency medical services. Subsequently, the Lean Healthcare approach has been proven to accelerate clinical workflows and reduce wasted time and unnecessary workloads [12].

However, in Indonesia, the application of these three approaches is generally done partially. For example, effective communication training or CRM training is carried out separately without integration with Lean Healthcare principles. In fact, complex burnout in healthcare workers requires integrated interventions that combine improved communication skills, strengthened team coordination, and improved work efficiency. There has been no research in Indonesia that integrates TeamSTEPPS, CRM, and Lean Healthcare into a single integrated intervention model to address burnout among medical personnel in hospitals. In fact, this integration has the potential to reduce burnout through improved communication skills, team support, and work efficiency, thereby improving patient safety.

2 Methods

This policy brief is based on a comprehensive review and synthesis of national and international evidence related to burnout among healthcare workers in Indonesia. The brief used on both secondary and primary evidence to inform recommendations for the development and implementation of an integrated management system to address burnout through the Team-Centered Leadership (TCL) model. Secondary sources included national healthcare workforce reports, burnout prevalence studies, and global best practices from models like TeamSTEPPS, CRM, and Lean Healthcare. Primary evidence was derived from a case study conducted at Bhakti Asih General Hospital in Tangerang, which highlighted the significant impact of high physical and mental workloads, poor team support, and unbalanced workload distribution on nurse performance and well-being [13]. The analysis focused on identifying gaps between existing burnout management efforts and the need for a more holistic, team-based approach. Evidence was synthesized to develop actionable policy recommendations, involving the Ministry of Health Indonesia, hospital administrators, and healthcare educators, to adopt and integrate the TCL model across hospitals for improving team coordination, work-life balance, and healthcare worker welfare.

3 Results And Discussion

3.1 Main Issue

Burnout among healthcare workers has become a serious problem that directly impacts service quality, patient safety, and the well-being of medical personnel. This condition is characterized by emotional exhaustion, decreased motivation, and weakened professional effectiveness due to chronic and unmanaged work pressure. High workloads, lack of team support, weak interprofessional coordination, and an unfavorable work environment exacerbate burnout in various healthcare facilities. The impact not only reduces individual performance but also disrupts team collaboration, increases the risk of medical errors, and lowers the quality of healthcare services.

Although various communication and team management training programs have been implemented in a number of hospitals, most of them are still run separately and have not been integrated into a comprehensive management system. As a result, burnout prevention efforts have not yielded optimal results.

The absence of a national strategy that regulates the integrated management of healthcare worker burnout indicates the need for policy reform through a collaboration-based team management system and work-life balance. This approach is crucial for creating an adaptive, efficient work environment that prioritizes the well-being of healthcare workers and patient safety.

Various training approaches have been developed globally to address this issue. The Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) approach emphasizes the importance of interprofessional communication and coordination; Crew Resource Management (CRM) focuses on strengthening human resource management and collective decision-making; while Lean Healthcare improves the efficiency of clinical workflows and reduces wasted time. All three have been proven effective individually in improving patient safety and reducing medical errors.

However, implementation in Indonesia is still partial and not integrated. TeamSTEPPS or CRM training is generally conducted as a stand-alone program without being linked to the principles of efficiency and work system improvement offered by Lean Healthcare. As a result, the interventions carried out have not been able to address the complexity of burnout that stems from the interaction between high workloads, communication dysfunction, and weak team management.

The unavailability of an integrated intervention model that combines communication skills enhancement, team coordination strengthening, and organizational work efficiency is a significant policy gap in Indonesia's healthcare system. This condition underscores the need for a national strategy that incorporates various team-based training approaches into a single integrated management framework. This approach can be accommodated through the implementation of the Team-Centered Leadership (TCL) Model as an adaptive, collaborative hospital team management system that is oriented towards the welfare of health workers and patient safety.

3.2 Study Case

Bhakti Asih General Hospital, Tangerang (2021–2022) with 84 inpatient nurses as respondents [13]

1. Identification of Burnout and Workload Cases

   This study was conducted at Bhakti Asih General Hospital in Tangerang in response to findings of a significant decline in nurse performance, with approximately 27% of nurses recorded as performing below hospital standards. Initial analysis shows that this condition is closely related to the high physical and mental workload faced by nurses in the inpatient ward. An unbalanced patient-to-nurse ratio, high administrative demands, and long working hours led to increased physical and psychological stress.

   Although this study does not explicitly use the term burnout syndrome, the concept of work fatigue identified through the variables of physical and mental workload has characteristics similar to the dimensions of burnout, namely emotional exhaustion, depersonalization, and reduced personal achievement. Thus, this study places burnout as a

psychological effect that emerges in the relationship between workload and decreased nursing performance.

2. Case Characteristics

There were 84 respondents in this study, all of whom were inpatient nurses, with the majority being female (90.5%) and in the productive age group of 25–29 years. Most respondents had a diploma (D3) Nursing degree (82.1%), which is the general level of education for clinical nurses in medium-sized hospitals.

The results showed that physical workload was in the low category, mental workload was in the moderate category, and the overall burnout level was low. However, the correlation between workload and burnout was statistically significant, meaning that even a slight increase in workload could increase the potential for burnout. On the other hand, the nurses' performance level was categorized as high, but this does not rule out the possibility of a continuous deterioration if the workload is not properly managed. This condition illustrates an imbalance between job demands and the capacity of health workers, where high performance is achieved at the expense of psychological stability.

3. Variable Relationships and Key Findings

The results of path analysis show that physical and mental workload have a significant effect on burnout levels, each with a positive coefficient indicating a parallel relationship. This means that the higher the workload, the greater the level of emotional exhaustion and depersonalization experienced by nurses. More specifically, mental workload has a stronger influence than physical workload on the emergence of burnout.

In addition, both physical and mental workload have been shown to have a direct negative effect on nurse performance. This indicates that increased work pressure has a direct impact on reduced productivity and service effectiveness. However, the burnout variable does not play a significant mediating role in the relationship between workload and performance. Thus, although burnout is a psychological manifestation of work pressure, the main impact on nurse performance comes mostly from the direct workload that has not been distributed evenly. These findings show that the problem of burnout in hospitals does not stand alone, but is part of structural problems in the work system and management of nursing teams.

4. Evaluation of Systems and Solutions within the National Strategy Framework

The results of this study show that the work management system at Bhakti Asih General Hospital is still individual-oriented and reactive, without a team-based workload adjustment mechanism. Nurse assignments do not take into consideration case complexity, individual capacity, or team dynamics. As a result, the physical and mental workload is not distributed proportionally among team members.

In addition, the high mental workload indicates psychological pressure stemming from limited communication and support among nurses. Vertical and bureaucratic communication patterns make it difficult for nurses to express their fatigue or the obstacles they face in the field. Burnout monitoring is also not carried out regularly, so that symptoms of emotional exhaustion often go undetected until they have a real impact on performance.

The performance of nursing staff in hospitals is still measured based on clinical indicators and administrative productivity, rather than psychological well-being and team effectiveness. This causes the emotional and social dimensions of nurses' work is neglected. Furthermore, there are no internal policies governing the adaptive redistribution of workloads based on unit needs or staffing conditions. This evaluation indicates the need for a new management system that places work-life balance, team communication, and psychological support as integral parts of healthcare human resource management. In the context of national policy, this situation underscores the importance of implementing a Team-Centered Leadership (TCL)-based management system in hospitals, where work

distribution, supervision, and evaluation are carried out collectively and oriented toward team well-being, not merely individual performance.

5. Conclusion of Analysis
   This study shows that physical and mental workload has a significant effect on nurses' burnout levels and performance [13]. Although the measured burnout levels have not yet reached the high category, the increasing trend in work pressure indicates a risk that could develop into serious psychological problems if not anticipated with appropriate organizational mechanisms.

   This condition shows that the root cause of burnout among nursing staff in Indonesia lies not only in individual resilience, but also in work management structures and systems that are not yet integrated. Imbalances in workload distribution, lack of social support in the workplace, and the absence of psychological monitoring systems are the main factors that increase the risk of burnout in hospitals.

   These findings provide a strong empirical basis for the development of a National Strategy for Managing Burnout among Healthcare Workers through the application of the Team-Centered Leadership (TCL) Model. This approach is relevant for improving team management systems in hospitals by creating collaborative coordination, adaptive work distribution, and a work culture that pays attention to the psychological well-being of healthcare workers as part of efforts to maintain service quality and the sustainability of the national health system

3.3 Policy Recommendation

1. Establishing a National Strategy for Managing Healthcare Worker Burnout Based on the TCL Model
   The government needs to develop and establish national policies that specifically regulate the prevention and management of healthcare worker burnout through the implementation of the Team-Centered Leadership (TCL) Model. This model integrates the TeamSTEPPS, Crew Resource Management (CRM), and Lean Healthcare approaches into a comprehensive hospital team management system. The goal is to create a collaborative, efficient work environment that is oriented towards the well-being of healthcare workers and patient safety.
2. Implementing the TCL Model as a Team Management System in Hospitals
   Every hospital, whether public or private, needs to adopt the TCL Model as the basis for managing healthcare teams. Through the integration of TeamSTEPPS principles (team communication and support), CRM (human resource management and collective decision-making), and Lean Healthcare (workflow efficiency and reduction of excessive workload), this system will build an adaptive and resilient cross-professional work pattern that can withstand high work pressure.
3. Developing an Integrated Burnout and Team Welfare Monitoring System
   Hospitals need to develop a mechanism for monitoring burnout on a regular basis using a team-based approach, rather than an individual-based approach. Work well- being assessments, workload evaluations, and assessments of communication and team effectiveness should be part of the Team-Centered Leadership Dashboard system. This data will serve as the basis for workload redistribution, provision of psychosocial support, and workflow improvements in accordance with Lean Healthcare principles.
4. Mandatory TCL Training for Leaders and Clinical Teams
   TCL-based training should be a mandatory national program for ward managers and hospital leaders in all healthcare facilities. This training should include TeamSTEPPS to enhance interprofessional communication and trust, CRM to improve crisis management

and collective decision-making, and Lean Healthcare to optimize work efficiency and reduce non-clinical burdens that contribute to burnout.

5. Establishing National Standards for Team Leadership and Healthcare Worker Well-being Indicators
   The Ministry of Health needs to develop national standards on team leadership competencies and health worker well-being indicators as part of hospital accreditation. These standards cover aspects of communication, collaboration, work-life balance, and team effectiveness, so that the well-being of medical personnel becomes an integral measure of service quality.
6. Promoting Organizational Culture Reform in Hospitals towards Collaborative Leadership
   Changing the work culture from a hierarchical model to a collaborative one needs to be part of TCL implementation. Openness, participatory, and empathetic leadership must be present throughout the hospital organization so that healthcare workers feel heard, valued, and supported both emotionally and structurally. In this way, hospitals can become resilient and sustainable social systems in the long-term work pressures.

3.4 Study Setting Analysis

The Team-Centered Leadership (TCL) Model development program as a hospital team management system is directly related to all points of the policy recommendations that have been formulated previously. The TCL model integrates three main approaches—TeamSTEPPS (team communication and collaboration), Crew Resource Management (CRM; collective decision-making and crisis management), and Lean Healthcare (work system efficiency and reduction of excessive workload). The focus of research on the implementation of this model in regional hospitals such as Bhakti Asih Tangerang General Hospital is very strategic as empirical evidence of the application of an integrated management system in overcoming healthcare worker burnout. Related Policies:

a. **Point 1:** The development of the TCL Model needs to be piloted in type B and C regional hospitals, such as Bhakti Asih Tangerang Regional General Hospital, to build a prototype of a team management system based on integrated communication, efficiency, and collective decision-making. This location can serve as a national reference in the development of team-based burnout management policies, as well as a learning model for other hospitals in implementing a sustainable collaborative approach.
b. **Point 2:** This study shows that high physical and mental workload is a major determinant of burnout and decreased performance among nurses. Therefore, the TCL system at the hospital level needs to be accompanied by a healthcare worker welfare monitoring dashboard that can map workload, fatigue levels, and team dynamics in real time. This data integration will strengthen evidence-based managerial decision-making, while enabling adaptive workload redistribution policies.
c. **Points 3 and 4:** The case study results show that the lack of integrated training combining TeamSTEPPS, CRM, and Lean Healthcare is the main cause of weak interprofessional collaboration and high work pressure. Therefore, healthcare workforce capacity development should focus on the TCL Competency Program training for ward managers, unit managers, and nursing teams. This training not only strengthens communication and leadership skills but also builds reflective abilities in managing work stress and team dynamics.
d. **Points 5 and 6:** Research findings indicate that the current hospital performance system still focuses on productivity indicators rather than employee welfare. Therefore, the implementation of TCL needs to be integrated into hospital accreditation policies through the establishment of Health Team Welfare Indicators (IKTK) that assess work-life balance, communication effectiveness, and team support.

This will ensure that the welfare of medical personnel becomes part of the national health service quality standards.

The Study Setting Analysis at Bhakti Asih General Hospital in Tangerang reflects the general conditions of regional hospitals in Indonesia, which face high workloads, limited human resources, and weak interprofessional coordination. The results of the study show a strong relationship between mental workload and burnout, as well as a weak team support system that impacts the performance of health workers. This condition reveals a gap between hospital policies that focus on service output and the need to maintain work-life balance and the well-being of medical personnel.

4 Conclusion

The implementation of the TCL model in hospitals such as Bhakti Asih General Hospital has the potential to become a national policy innovation in health team management reform. Through the integration of collaborative communication, work system efficiency, and team-based decision making, this model can reduce burnout rates, strengthen the psychological resilience of medical personnel, and improve patient safety.

Cross-sector synergy between the Ministry of Health, regional hospitals, health education institutions, and accreditation agencies is needed to develop TCL as a national team management model. Investment in developing team leadership capacity and health worker welfare monitoring systems not only contributes to reducing burnout but also strengthens the foundation of Indonesia's health system towards more humane, efficient, and sustainable services.

Thus, the focus of this research provides a strong empirical and operational basis to support the implementation of the National Strategy for Healthcare Worker Burnout Management through the Team-Centered Leadership (TCL) Model as an integral part of policies to improve the quality and safety of hospital services in Indonesia.

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