

Administrative Workload and the Limitations of Operational Reliability in BOK Implementation at Puskesmas: A Qualitative Study Using the HRO Framework

Tetet Kartilah¹, Dewi Aryanti²

^{1,2}Nursing Department, Tasikmalaya Health Polytechnic, Tasikmalaya, West Java, Indonesia.
Corresponding Author: * dewiaryanti9@gmail.com

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ABSTRACT

Strengthening primary healthcare through promotive and preventive financing, such as the Bantuan Operasional Kesehatan (BOK) program, is essential for achieving Indonesia's Minimum Service Standards (SPM). However, national evidence suggests that increased financing does not necessarily lead to improved program performance. Frontline administrative workload, organisational capacity, and operational reliability remain critical factors shaping implementation outcomes. This study examined the workload experienced by BOK managers at Primary Healthcare (Puskesmas) and its implications for operational reliability, using the High Reliability Organisation (HRO) framework.

A qualitative descriptive approach was applied using purposive sampling of BOK managers involved in planning, budgeting, and reporting. Data were collected through in-depth interviews and document reviews, and were analyzed thematically using an inductive-deductive process informed by the five HRO principles.

Five themes emerged: (1) heavy administrative workload and vulnerability to operational failure, (2) rigid and oversimplified policy guidance, (3) limited sensitivity to real-time operational demands, (4) organisational resilience dependent on individual effort rather than system support, and (5) restricted decision-making authority among frontline experts. These findings indicate that current BOK implementation remains dominated by a compliance-driven administrative model that constrains organisational reliability and hinders SPM achievement.

1. INTRODUCTION

From the perspective of street-level bureaucracy theory, field implementers such as the manager of the Health Operational Agency (BOK) are key actors who operationalize policies through interpretation, negotiation, and daily improvisation (Lipsky, 2010). When top-down policies fail to account for the realities of operational work, implementers often respond with informal adaptations that can lead to distortions in output goals (Peabody et al., 2018; Hood, 2006). This condition is exacerbated when BOK managers face strict target-based performance systems, sudden technical changes, and multi-platform reporting demands that lead to a significant increase in administrative burden.

The High Reliability Organization (HRO) perspective provides an essential theoretical framework for assessing how healthcare organizations should be able to maintain operational stability in high complexity and pressure through five main principles: preoccupation with failure, reluctance to simplify, sensitivity to operations, commitment to resilience, and deference to expertise (Weick &

Sutcliffe, 2001; 2007; Chassin & Loeb, 2013). However, empirical evidence suggests that healthcare organisations in many countries are still far from HRO standards due to high bureaucracy, hierarchical cultures, and administrative burdens (Bagnara et al., 2010; Eriksson, 2017; McManus, 2008; OECD, 2020). Overload has been shown to trigger emotional burnout, disengagement, and decreased operational accuracy (Montgomery et al., 2019; Shanafelt & Noseworthy, 2017; Cresswell & Sheikh, 2021).

Based on this situation, this study examines in depth how the workload of BOK managers in Puskesmas affects the effectiveness of BOK implementation in achieving SPM, by using the HRO framework to understand operational dynamics, risks, and structural reform needs.

2. METHODS

This study employed a qualitative descriptive design to explore the workload experiences of BOK program managers at the Primary Healthcare (Puskesmas) level and to analyse operational reliability using the High Reliability Organisation (HRO) framework. Participants were selected through purposive sampling based on their direct involvement in program planning, budgeting, reporting, and policy execution.

Data were collected through in-depth, semi-structured interviews and a review of the BOK technical guidelines and reporting systems. Interviews were conducted face-to-face and audio-recorded with participant consent. A total of 10 informants were included from two Primary Healthcare facilities in Tasikmalaya District, consisting of BOK financial officers, program coordinators, and administrative staff.

Data analysis was performed using thematic analysis following Braun and Clarke's six-step approach, combining inductive coding derived from field responses and deductive coding guided by the five HRO principles (preoccupation with failure, reluctance to simplify, sensitivity to operations, commitment to resilience, and deference to expertise). Coding and theme development were supported by manual matrix comparison of categories and meaning clusters.

Research rigor was ensured through method triangulation (interviews and document review), member checking, and peer debriefing, all of which were used to enhance credibility and dependability in accordance with Lincoln and Guba's trustworthiness criteria. Ethical approval for this study was obtained from the Institutional Ethics Committee, Medical Health Research Ethics Committee (MHREC) FK UGM 2024, and participants signed informed consent forms prior to data collection.

3. RESULTS AND DISCUSSIONS

Thematic analysis identified five major themes reflecting the experiences of BOK program managers in implementing the policy at the Primary Healthcare (Puskesmas) level. Each theme is aligned with the High Reliability Organisation (HRO) principles to demonstrate its implications for organisational reliability and performance outcomes.

Theme 1 – High Administrative Workload and Operational Failure Risks

BOK managers reported substantial administrative pressure due to multi-application reporting and strict deadlines, often resulting in extended working hours.

This condition indicates weak preoccupation with failure, as the system lacks mechanisms for workload mitigation, risk prediction, or operational backup.

Theme 2 – Oversimplification of Policy and Limited Flexibility

Participants described constraints arising from rigid technical guidelines that do not accommodate contextual field needs.

This reflects the absence of reluctance to simplify, whereby top-down uniform regulations undermine context-based decision-making and local innovation.

Theme 3 – Low Sensitivity to Real-Time Operational Dynamics

Frequent urgent policy revisions and shifting priorities—particularly during health emergencies—exceeded the system’s adaptive capacity.

This reveals low sensitivity to operations, leaving frontline staff to manage sudden operational challenges without structural support.

Theme 4 – Weak Organisational Resilience due to Individual Compensatory Effort

Overtime work and repeated revisions of planning documents were used as coping mechanisms.

Such dependence on personal sacrifice indicates that commitment to resilience is not structurally embedded but relies on individual endurance.

Theme 5 – Limited Decision-Making Authority for Technical Experts

Although BOK managers have the closest operational understanding, they hold limited influence in policy decisions.

This demonstrates the absence of deference to expertise, where hierarchical control outweighs frontline knowledge and experience.

Overall, the findings demonstrate that excessive administrative workload, rigid policy structures, and insufficient organisational support reduce operational reliability and hinder the achievement of SPM targets at the frontline service level.

The study's findings reveal that the administrative workload of BOK managers is extremely high, encompassing reporting management on numerous applications, sudden planning revisions, and pressure to meet SPM targets. This operational reality is consistent with the theory of street-level bureaucracy, where policy implementers are in a dilemma between the demands of budget controllers and the real conditions of services, so that it often triggers adaptation strategies such as extreme overtime and postponement of direct service tasks (Lipsky, 2010; Hood, 2006; Peabody et al., 2018).

If analyzed from the perspective of HRO, these conditions indicate the failure of the organization in applying the principle of preoccupation with failure, because the risk management system is unable to anticipate potential failures arising from excessive administrative burden and dependence on individuals (Weick & Sutcliffe, 2001; Chassin & Loeb, 2013). The lack of technical flexibility and uniformity of procedures that force the same justification for different contexts indicates the non-application of the principle of reluctance to simplify, which ignores the complexity of fieldwork (Eriksson, 2017; McManus, 2008).

In addition, weak sensitivity to operations is reflected in the frequent, sudden changes in regulations without adequate system readiness, including when priority issues such as polio outbreaks or the COVID-19 pandemic arise. As a result, the commitment to resilience becomes weak, as shown by the need to work twice in the revision process and the use of overtime as an operational recovery mechanism (Bagnara et al., 2010; OECD, 2020).

Administrative burdens and performance pressures without structural support pose a risk of burnout, professional disengagement, and reduced documentation accuracy, as evidenced in global primary health studies (Montgomery et al., 2019; Shanafelt & Noseworthy, 2017; Kruse et al., 2018). This condition indicates that the implementation of BOK is more compliance-based than performance-learning-based, which has consequences for the organization's low reliability in achieving SPM goals.

Thus, BOK policy reform should be directed at reducing administrative burdens, simplifying reporting platforms, strengthening field technical decision-making authority (deference to expertise), and integrating operational risk management based on HRO principles to achieve reliable and sustainable primary services.

4. CONCLUSION

This study concludes that the implementation of the BOK program at the Primary Healthcare level has not yet demonstrated the characteristics of a High Reliability Organisation (HRO) and remains dominated by a compliance-based administrative paradigm, rather than performance-oriented reliability. Excessive administrative workload, strict performance targets, multi-platform reporting systems, and low policy flexibility collectively weaken operational sensitivity, resilience, and organisational capacity to achieve SPM outcomes. The findings indicate that structural reforms are necessary to strengthen reliability in BOK implementation through: Integration of reporting systems and redistribution of administrative workload to prevent staff overload; Policy flexibility tailored to local contexts and simplification of bureaucratic procedures; Application of HRO principles, particularly sensitivity to operations and deference to expertise, by empowering frontline decision-makers; Strengthening adaptive support mechanisms, shifting from individual coping responses (e.g., overtime) to collective organizational readiness; Without adopting HRO-based structural reform, BOK implementation risks remaining a low reliability organization, which can ultimately impede national efforts to achieve equitable primary health outcomes. Future research should include a quantitative assessment of administrative workload and a comparative cross-district evaluation to validate the generalizability of the findings.

This study is limited to two Puskesmas; a broader cross-site comparison is recommended. Findings support the redesign of BOK management toward simplification, automation, and strengthening of human resources, aligning with Indonesia's Primary Health Care transformation agenda.

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