Acta Medicinae et Sociologica (2026)
Vol. 17. No. 42. (250-261)
doi:
https://doi.org/10.19055/ams.2026.05/29/11

UNIVERSITY OF DEBRECEN
FACULTY OF HEALTH SCIENCES
NYÍREGYHÁZA

Advancing Patient-Centered Public Service in Healthcare: A Quality Assessment of Inpatient Discharge Processes at Indonesian Private Hospital

A betegközpontú közszolgáltatás fejlesztése az egészségügyben: A fekvőbeteg-elbocsátási folyamatok minőségi értékelése egy indonéz magánkórházban

Dieni Ananda Putri[1], Dhita Widya Putri[2], Nofi Erni[3] and Kemala Rita Wahidi[4]

[1]Graduated Student, Universitas Esa Unggul, Jl. Arjuna Utara No.9, Duri Kepa, Kec. Kb. Jeruk, Kota Jakarta Barat, Daerah Khusus Ibukota Jakarta 11510, Indonesia, https://orcid.org/0009-0005-4100-5515
[2]PhD Student, Doctoral School of Management and Business, University of Debrecen, Hungary, Debrecen, Böszörményi út 138, 4032, https://orcid.org/0009-0007-8028-6748
[3]Lecturer, Universitas Esa Unggul, Jl. Arjuna Utara No.9, Duri Kepa, Kec. Kb. Jeruk, Kota Jakarta Barat, Daerah Khusus Ibukota Jakarta 11510, Indonesia, https://orcid.org/0000-0001-5731-8106
[4]Lecturer, Universitas Esa Unggul, Jl. Arjuna Utara No.9, Duri Kepa, Kec. Kb. Jeruk, Kota Jakarta Barat, Daerah Khusus Ibukota Jakarta 11510, Indonesia, https://orcid.org/0000-0002-3247-3481

INFO

Dhita Widya Putri
widya.putri.dhita@econ.unideb.hu

Keywords
patient-centered public service,
inpatient discharge process,
user satisfaction,
service quality,
Lean healthcare

ABSTRACT

This case study examines the inpatient discharge process at a private hospital in Bogor, West Java, Indonesia, within a patient-centered public service framework. In 2023, the average discharge time for insured patients was 4 hours and 21 minutes, exceeding the national standard set by the Ministry of Health. A mixed-method, sequential exploratory design was applied, involving 24 inpatients covered by Third-Party Administrators (TPAs). Data were collected through interviews, document analysis, and statistical testing. The analysis revealed that 79% of total discharge time consisted of non-value-adding activities, including delays, duplication, and fragmented interdepartmental coordination. Following Lean-based process redesign, the average discharge time decreased to 2 hours and 8 minutes ($p < 0.001$), accompanied by

improved patient satisfaction and perceived service quality. The findings suggest that integrated workflow management is essential for strengthening responsiveness, institutional legitimacy, and patient-centered healthcare governance.

Kulcsszavak
betegközpontú közszolgáltatás, fekvőbeteg-ellátás elbocsátási folyamata, felhasználói elégedettség, szolgáltatásminőség, lean egészségügy

A tanulmány egy nyugat-jávai (Bogor, Indonézia) magánkórház fekvőbetegeinek elbocsátási folyamatát vizsgálja a betegközpontú közszolgáltatási modell keretében. 2023-ban a biztosított betegek átlagos elbocsátási ideje 4 óra 21 perc volt, amely meghaladta az Egészségügyi Minisztérium által előírt országos standardot. A kutatás vegyes módszertanú, szekvenciális feltáró megközelítést alkalmazott, 24, harmadik fél által finanszírozott (TPA) beteg bevonásával. Az adatgyűjtés interjúkra, dokumentumelemzésre és statisztikai vizsgálatra épült. Az eredmények szerint az elbocsátási idő 79%-a nem értékteremtő tevékenységekből állt, különösen késedelmekből, folyamatduplikációból és szervezeti széttagoltságból. A lean alapú folyamat-újratervezés az átlagos elbocsátási időt 2 óra 8 percre csökkentette ($p < 0,001$), miközben növelte a betegek elégedettségét és az észlelt szolgáltatásminőséget. A vizsgálat rámutat arra, hogy az integrált, betegközpontú munkafolyamatok kulcsfontosságúak a reagálóképes és legitim egészségügyi rendszer kialakításában.

Beérkezett: 2025.12.17 Bírálat: 2026.02.26 Elfogadva: 2026.03.29

Introduction

The last few decades have seen a fundamental shift in healthcare service provision, moving from a system-centered orientation toward a patient-centered approach. This transformation is increasingly recognized as a core principle of quality in public services, reflecting a broader reorientation in public administration that positions citizens not merely as passive recipients, but as engaged stakeholders. In healthcare, this shift elevates patients' expectations, experiences, and satisfaction as key indicators of institutional performance (Epstein & Street, 2011; World Health Organization, 2007).

In Indonesia, this transformation is supported by legal and policy frameworks. The 1945 Constitution guarantees citizens' right to healthcare, further strengthened by Law No. 17/2023 concerning Health (Republik Indonesia, 2023; Kementerian Kesehatan Republik Indonesia, 2022). Over the past decade, the hospital sector has expanded significantly, including an 11% growth in hospital facilities across West Java between 2019 and 2021 (*Badan Pusat Statistik Jawa Barat*, 2023). However, increased infrastructure does not

automatically translate into improved service quality. Empirical evidence indicates that long waiting times, weak inter-unit coordination, and communication gaps remain major sources of dissatisfaction (Frinaldi & Embi, 2015).

Operational inefficiencies are not peripheral issues; they directly influence public trust in healthcare institutions. Prolonged waiting times and fragmented administrative processes may lead patients to perceive services as unreliable, and in some contexts, encourage them to seek care abroad (Taner & Antony, 2006; Pillay et al., 2011). In inpatient services, discharge processes are particularly sensitive, as they represent the final institutional interaction experienced by patients. As an illustrative case, a private class C hospital in Bogor, West Java, reported an average inpatient discharge time of 4 hours and 21 minutes in 2023, more than double the national standard of ≤2 hours stipulated in the Ministry of Health Decree No. 129/Menkes/SK/II/2008. Notably, 31% of recorded complaints in the same year were related to discharge procedures. The literature consistently demonstrates that waiting time is not merely an operational metric, but a determinant of satisfaction, loyalty, and perceived clinical quality (Almomani et al., 2020).

International evidence further confirms that prolonged waiting undermines trust and system responsiveness. For example, patients in Malaysia spend more than two hours in service processes despite relatively brief physician interaction (Pillay et al., 2011). Such disparities reflect deeper systemic inefficiencies characterized by non-value-adding time within healthcare processes (Dimakou et al., 2015; Hoel & Sæther, 2003). To address these challenges, this study adopts a patient-centered service perspective and examines the inpatient discharge process at a private hospital in Bogor, West Java. By integrating Lean management principles with action research, the study aims to eliminate non-value-adding activities, streamline discharge workflows, and enhance patient experience. The integration of operational efficiency and user-centered metrics is expected to contribute to both managerial performance and social legitimacy in healthcare governance (Garcia-Lacalle & Martin, 2010; Mohani et al., 2004).

Theoretical Background

1. Patient-Centered Public Service (PCPS)

The patient-centered paradigm represents a normative and managerial shift in healthcare governance. Rather than emphasizing institutional convenience, patient-centered public service (PCPS) prioritizes responsiveness to individuals' needs, preferences, and values. The World Health Organization advocates for people-centered health systems that are effective, accessible, equitable, and responsive (WHO, 2018; Sun et al., 2017). Recent research further emphasizes that communication clarity and health literacy significantly shape patient experiences. Libicki et al. (2025) demonstrate that difficulties in interpreting hospital documentation may weaken informed decision-making and perceived service quality. In discharge contexts, where patients receive billing information, prescriptions, and follow-up instructions, clarity of communication becomes integral to trust formation.

Thus, patient-centered discharge management requires not only clinical readiness but also administrative transparency and inter-unit coordination. Service responsiveness is operationalized through reliability, empathy, and timeliness in institutional processes.

2. Lean Healthcare

Lean management originates from the Toyota Production System and focuses on eliminating waste while maximizing value from the customer's perspective (Ohno, 1978; Womack & Jones, 2003). In healthcare, Lean is adapted to improve patient flow, reduce errors, and shorten waiting times (Graban, 2018). Lean distinguishes between value-added activities, necessary non-value-added activities, and pure waste. In discharge processes, non-value-adding time may include redundant administrative verification, repeated documentation, or inter-departmental delays. Waste is commonly categorized into waiting, transportation, overprocessing, inventory, motion, defects, overproduction, and non-utilized talent (Gaspersz & Fontana, 2011).

The five principles of Lean, specifying value, identifying the value stream, creating flow, establishing pull, and pursuing perfection, provide a structured framework for process redesign (Womack & Jones, 2003). In hospital settings, value is defined from the patient's perspective, while value stream mapping enables visualization of inefficiencies across administrative and clinical units.

Empirical studies demonstrate Lean's effectiveness in reducing discharge time and improving operational performance (Peimbert-García et al., 2021; Wirandari & Utarini, 2019; Ayaad et al., 2022).

3. Service Quality & SERVQUAL

Service quality in healthcare encompasses both technical competence and functional experience. WHO defines quality healthcare as safe, effective, timely, efficient, equitable, integrated, and people-centered (WHO, 2018).

The SERVQUAL framework conceptualizes service quality across five dimensions: reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman et al., 1988; Pheng & Rui, 2016). In discharge processes, reliability refers to accurate billing and documentation, responsiveness reflects timely administrative completion, assurance builds confidence in procedural accuracy, and empathy involves respectful communication during final interactions. Customer satisfaction emerges when perceived performance aligns with or exceeds expectations (Kotler & Armstrong, 2008). Therefore, discharge efficiency directly influences perceived service quality.

4. Waiting Time & Trust in Public Services

Waiting time represents a critical indicator of healthcare performance. According to the Indonesian Ministry of Health (2008), discharge information must be delivered within two hours after medical clearance. Prolonged waiting reflects systemic inefficiencies and negatively affects satisfaction (Depkes RI, 2007).

Studies suggest that excessive waiting reduces institutional trust and perceived fairness (Taner & Antony, 2006; Pillay et al., 2011). From a public administration perspective, efficiency must align with accountability and equity to maintain social legitimacy (Garcia-Lacalle & Martin, 2010). In inpatient settings, discharge delays disrupt bed turnover, affect emergency admissions, and create cascading operational bottlenecks. Thus, improving discharge flow is not merely a technical intervention but a trust-restoring strategy within healthcare governance.

Materials and Methods

This study is derived from a master's thesis; however, the theoretical framing, analytical focus, and contribution differ substantially from prior publications.

Using a mixed-methods design with a sequential exploratory strategy and an action research approach, this study integrated qualitative and quantitative methodologies to understand complex healthcare systems in multi-faceted ways. This approach is more complex and nuanced, thereby increasing the validity of the metrics and the depth of the insights, particularly when analyzing specific service delivery and the resulting patient experience (Creswell & Creswell, 2018). The purpose of the sequential exploratory design was to capture, in detail and qualitatively, the context-sensitive experiences of patients and frontline staff. This phase involved analyzing the inpatient discharge process at a private hospital in Bogor, West Java, using semi-structured interviews, non-participant observations, document analysis, and Value Stream Mapping (VSM). These methods focused the analysis of the discharge process on identifying critical areas of waste in waiting, transport, and overprocessing. These are the areas with the highest levels of patient dissatisfaction and service discontinuity. These qualitative insights, however, focused on more than simply the system inefficiencies. They explored how these inefficiencies translated into patients' lived experiences of suffering, including extended waiting, multiple handoffs, and fragmented care continuity.

These results formed the basis for the first step in developing the study's quantitative dimension (Tashakkori & Teddlie, 2010). Tied to this descriptive construction, the quantitative dimension of the study used paired t-tests to assess differences in discharge processing times before and after the intervention. The statistical analysis aimed to assess the impact of Lean Operations changes from the perspective of patients, particularly their perception of timely service, which is closely associated with satisfaction and perceived quality (Field, 2018). The collection of qualitative and quantitative evidence strengthened the argument that the focus of the changes should extend beyond system efficiency to include user-perceived service quality. To achieve meaningful outcomes and to examine change within the organization, the study employed an action research cycle with iterative phases of planning, action, observation, and reflection, involving researchers and hospital staff (Reason & Bradbury, 2008). The co-participation approach gave stakeholders ownership of service enhancement while ensuring that the co-created service improvements aligned with patients’ actual needs. Patient experience as assessed with the Reduction of waiting time and increased satisfaction, better communication, and fewer complaints, especially administrative ones that concerned delays and miscommunication across departments.

This Health Service Research case involved simple random sampling of TPA-holding patients. Selection bias was controlled, and the sample was representative of the population. As noted by Bryman (2016), this is a classic case of a best practice in Health Service Research. The synthesis of the various approaches in this study highlights the complexities of the entire hospital service delivery system, including its relationships, functioning, administrative efficiency, and responsiveness to patients. The study's participatory, operational, and triangulated approach brings to the forefront the important issues and challenges of hospital operational system reform. It demonstrates that reforms should not only be evaluated technically, in terms of system improvements, efficiency, and the delivery of hospital services, but also be assessed for the system's ability, sustainably, to restore patients' trust, satisfaction, and dignity, as transformed by the quality of services rendered. This is an important factor in the sustainability of public health care quality. This study was also approved by the Ethics Committee of Universitas Esa Unggul, and all participants provided informed consent prior to participation.

Results

The Lean-based reengineering of the inpatient discharge process produced measurable operational improvements at the private hospital in Bogor, West Java. Prior to the intervention, the average discharge time was 4 hours and 21 minutes, more than twice the national standard of ≤2 hours. Approximately 31% of patient complaints concerned discharge delays and administrative confusion. Following the intervention, the average discharge time decreased to 2 hours and 8 minutes, representing a substantial reduction in waiting time. Non-value-adding activities were reduced by approximately 79%, particularly those related to duplicated verification, delayed pharmacy coordination, and fragmented insurance approval processes.

Operational redesign included early notification of physicians to the pharmacy, real-time insurance verification, and improved coordination among inpatient wards, finance, and administrative units. Post-intervention surveys and interviews indicated higher levels of patient satisfaction. Patients reported clearer communication, smoother administrative transitions, and reduced uncertainty during the discharge phase. In parallel with operational improvements, the number of discharge-related complaints declined within months of implementation. Feedback shifted from expressions of frustration

toward constructive suggestions, indicating improved institutional credibility and perceived responsiveness.

Discussion

The findings demonstrate that discharge inefficiencies were not primarily clinical in nature but organizational. Fragmented workflows, siloed departments, and delayed information exchange contributed significantly to extended waiting times. This supports Taner and Antony's (2006) argument that adverse patient experiences often originate from fragmented administrative processes rather than medical incompetence.

From a Patient-Centered Public Service (PCPS) perspective, the reduction in waiting time reflects more than operational efficiency. Sun et al. (2017) emphasize that shorter queues strengthen public confidence by signaling institutional responsiveness. In this study, patients expressed greater trust in the hospital's competence and coordination after the intervention. The nearly 79% reduction in non-value-added activities confirms Lean theory, which identifies waiting, overprocessing, and coordination failures as key sources of waste (Womack & Jones, 2003; Graban, 2018). Dimakou et al. (2015) similarly note that structural fragmentation within hospitals generates inefficiencies that undermine patient experience. By integrating cross-departmental workflows, the hospital improved both system flow and perceived dignity at discharge.

Service quality theory further contextualizes these findings. Improvements were particularly evident in responsiveness, reliability, and assurance, core SERVQUAL dimensions (Parasuraman et al., 1988). Hoel and Sæther (2003) identify discharge and coordination as critical determinants of hospital service evaluation. The intervention directly addressed these dimensions. Trust formation emerged as a secondary yet significant outcome. Pillay et al. (2011) argue that prolonged and unclear administrative processes are perceived as a disregard for patients' time. Magyari et al. (2024) similarly demonstrate that unclear pathways and extended processes erode confidence in healthcare providers. The present study confirms that improving discharge efficiency functions as a trust-restoring mechanism. Importantly, operational legitimacy in healthcare is inseparable from perceived fairness and responsiveness (Garcia-Lacalle & Martin, 2010). The intervention illustrates how Lean redesign can strengthen both managerial performance and social legitimacy.

Summary

This study examined the inpatient discharge process for insured patients at a private hospital in Bogor, West Java, using a Lean operational framework. In terms of theoretical contribution, the study integrates Lean Healthcare with the Patient-Centered Public Service (PCPS) framework, demonstrating that discharge efficiency is not merely a technical improvement but a mechanism for enhancing institutional trust, service responsiveness, and public legitimacy.

For methodological contribution, by combining Value Stream Mapping, waste identification, time analysis, and action-based workflow redesign, the research provides an applied model for operational reform in hospital discharge management within middle-income health systems.

The findings also highlight the necessity of cross-departmental integration in regard to the policy and managerial implications, such as real-time information sharing, and standardized discharge protocols. Health institutions should routinely evaluate discharge workflows as part of service quality governance. At the policy level, efficiency reforms must be explicitly linked to patient-centered standards to ensure that operational improvements translate into improved public trust. Overall, the case demonstrates that Lean-based redesign can simultaneously improve operational performance, reduce complaints, and strengthen the relational dimension of healthcare delivery. In democratic health systems, placing patients at the center of hospital management is not only a managerial strategy but a normative obligation.

Ethics Statement

This study was approved by the Ethics Committee of Universitas Esa Unggul. All procedures complied with institutional ethical standards and applicable regulations. Azra Hospital, Bogor, West Java, granted formal permission for data collection.

Informed Consent

Written informed consent was obtained from all participants prior to participation. Participants were informed about the study purpose, data confidentiality, and their right to withdraw at any time.

Conflict of Interest

The authors declare no competing financial or personal interests.

Funding

This research received no external funding.

Data Availability Statement

The data are derived from a master's thesis and contain sensitive hospital and patient information. Therefore, they are not publicly available but may be obtained from the corresponding author upon reasonable request and institutional approval.

Declaration of Generative AI and AI-Assisted Technologies

Grammarly and ChatGPT were used solely to improve language clarity. All analyses, interpretations, and conclusions are the authors' original work, and the authors take full responsibility for the content.

Acknowledgements

The authors thank Azra Hospital, Bogor, for facilitating the research and Universitas Esa Unggul for ethical and academic support.

References

Almomani, R. Z. Q., Risheed, R., & Banyhamdan, K. M. (2020). Patients' satisfaction of health service quality in public hospitals: A PubHosQual analysis. *Management Science Letters, 10*(8), 1803-1812. https://doi.org/10.5267/j.msl.2019.12.038

Badan Pusat Statistik Jawa Barat. (2023, August 1). Jumlah Desa/Kelurahan yang Memiliki Sarana Kesehatan Rumah Sakit 2019-2021. Retrieved from https://www.bps.go.id/

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Dimakou, S., Dimakou, O., & Basso, H. S. (2015). Waiting time distribution in public health care: empirics and theory. *Health Economics Review, 5*(25). https://doi.org/10.1186/s13561-015-0061-7

Epstein, R. M., & Street, R. L. (2011). The values and value of patient-centered care. *Annals of Family Medicine, 9*(2), 100-103. https://doi.org/10.1370/afm.1239

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.

Frinaldi, A., & Embi, M. A. (2015). Influence of public service quality in citizen satisfaction: Study in Private Hospital Y in Padang, West Sumatra Province. *Journal of Government and Politics, 6*(1), 103-115.

García-Lacalle, J., & Martín, E. (2010). Rural vs urban hospital performance in a 'competitive' public health service. *Social Science & Medicine, 71*(6), 1131-1140. https://doi.org/10.1016/j.socscimed.2010.05.043

Hoel, M., & Sæther, E. M. (2003). Public health care with waiting time: the role of supplementary private health care. *Journal of Health Economics, 22*(5), 599-616. https://doi.org/10.1016/S0167-6296(03)00007-9

Kementerian Kesehatan Republik Indonesia. (2022). Profil Kesehatan Indonesia 2022. Jakarta: Kementerian Kesehatan RI.

Libicki, É., R. Fedor, A., & Fábián, G. (2025). Tudás, hozzáférés, esélyek: Az egészség-információ értelmezésének társadalmi tényezői egy panelkutatás tanulságai alapján. *Acta Medicinae et Sociologica, 16*(40), 65-82. https://doi.org/10.19055/ams.2025.08/01/3

Magyari, I. M., Nagy, A. C., & Molnár, E. (2024). IBS-es betegek egészségmagatartása, megoldáskeresése és ennek hatása az IBS-ből való gyógyulásról alkotott véleményükre. *Acta Medicinae et Sociologica, 15*(38), 61-77. https://doi.org/10.19055/ams.2024.05/28/4

Mohani, A., Norazlan, M., & Johari, R. (2004). Quality in the Malaysian healthcare system: A study in a public hospital. *Malaysian Journal of Medical Sciences, 11*(1), 16-21.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12-40.

Pillay, D. I. M. S., Johari, R., Ghazali, N. H. A. M., Abdullah, A. H. A., Abu Bakar, A., Salikin, F., ... & Wan Ismail, W. I. (2011). Hospital waiting time: the forgotten premise of healthcare service delivery?. *International Journal of Health Care Quality Assurance, 24*(7), 506-522. https://doi.org/10.1108/09526861111160553

Reason, P., & Bradbury, H. (2008). *The SAGE handbook of action research: Participative inquiry and practice* (2nd ed.). SAGE Publications.

Republik Indonesia. (2023). Undang-Undang Nomor 17 Tahun 2023 tentang Kesehatan. Lembaran Negara Republik Indonesia Tahun 2023 Nomor 107.

Sun, J., Lin, Q., Zhao, P., Zhang, Q., Xu, K., Chen, H., ... & Liu, Y. (2017). Reducing waiting time and raising outpatient satisfaction in a Chinese public tertiary general hospital—an interrupted time series study. *BMC Public Health, 17*, 668. https://doi.org/10.1186/s12889-017-4667-z

Taner, M. T., & Antony, J. (2006). Comparing public and private hospital care service quality in Turkey. *Leadership in Health Services, 19*(2), 1-10. https://doi.org/10.1108/13660750610664991

Tashakkori, A., & Teddlie, C. (2010). *Sage handbook of mixed methods in social & behavioral research* (2nd ed.). SAGE Publications.

World Health Organization. (2007). *Everybody's business: Strengthening health systems to improve health outcomes: WHO's framework for action.* World Health Organization.