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Hospital Management and Nurse Roles: A Case Study on Patient-Centred Care as a Key Driver of Efficiency at XYZ Hospital in Jakarta

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A B S T R A C T

This research investigates the influence of nurses' roles and responsibilities on hospital operational efficiency and the provision of quality care, emphasizing patient-centred care as a crucial factor. The study was conducted at a Type C private hospital in Jakarta, with data gathered from 208 nurses possessing over one year of experience. The analysis was performed using SmartPLS®4. The findings reveal that enhancing patient safety, employing evidence-based practice, fostering patient-centred care, exhibiting positive interpersonal behaviour, and implementing clinical governance significantly improve hospital operational ef-ficiency. Furthermore, cognitive empathy was found to moderate the effects of evidence-based practice and patient-centred care on operational efficiency, exhibiting both positive and negative im-pacts. The research indicates that hospital operational efficiency strongly affects the quality of care, with higher nurse perceptions being associated with better quality outcomes. The model demon-strated moderate to strong explanatory power and substantial pre-dictive relevance, underscoring its efficacy in elucidating and forecasting quality care delivery through hospital operational effi-ciency. These findings underscore the necessity of integrating pa-tient-centred care and cognitive empathy into nursing practices to enhance hospital efficiency and the quality of care provided.

1. INTRODUCTION

Hospitals provide comprehensive healthcare services, including inpatient, outpatient, and emergency care, per Government Regulation 47 of 2021. The primary goal is high-quality care, assessed by clinical improvement, patient costs, and satisfaction, which also impacts organisational performance (Donabedian et al., 1982; Liljas et al., 2019)- and even nationwide, investing in patient safety has proven to offer good returns(Slawomirski & Klazinga, 2022). Research shows a correlation between service quality and hospital performance, with frontline nurses playing a crucial role (Molina-Mula & Gallo-Estrada, 2020; Prathibha Patel & Ranjith, 2018; Ricca & Antonio, 2021; Tasi et al., 2019)This is essential for human resource management in hospital administration. In 2023, 2,985 hospitals operated in both the government and private sectors. There are approximately 1,058 public and 1,927 private hospitals and over 10,205 public Health Community Centres (Puskesmas), which provide comprehensive primary healthcare (US Department of Commerce, 2023).

Type C hospitals, characterized by a minimum of 100 beds and primarily under private management, offer a limited range of specialist services. These services must include, at a minimum, internal medicine, surgery, pediatric medicine, and obstetric care. These hospitals receive case referrals from Puskesmas (community health centers) and are confronted with distinct management challenges, particularly in comparison to larger hospital chains, due to the implementation of BPJS (Indonesia's National Health Insurance) (Harimurti et al., 2017a; Wiknjopranoto et al., 2024).

The integration of BPJS services presents significant challenges for these hospitals, encompassing financial, operational, and procedural adjustments. These challenges necessitate careful management to balance efficiency and quality of care. The financial and operational complexities associated with BPJS require hospitals to adapt their systems, ensuring compliance with the new payment structures and service standards while maintaining high standards of patient care (Wiknjopranoto et al., 2024)

This study examines XYZ Private Hospital in East Jakarta, an accredited institution with around 150 beds, offering various specialists and over 25 years of operation. Located in a competitive and densely populated area, XYZ Hospital also participates in the National Health Insurance Program (BPJS), accepting covered patients.

The issues at XYZ Hospital were identified through qualitative, in-depth internal interviews with three sources. In a September 2023 interview, the director highlighted the need for quality enhancement and noted the inadequate involvement of medical staff in improvement programs. The head nurse reported that many nurses do not fully grasp management expectations, resulting in routine-based work. The Vice Director of Medical Services indicated that nurses' participation in quality and cost control programs is below target, particularly concerning given the

hospital's intake of BPJS patients. Despite efforts like KPIs, workload management, and training, these issues persist, suggesting a disconnect between management goals and staff behaviour, which could affect patient outcomes and hospital performance. Identifying factors to improve service quality from a nursing perspective is crucial.

Hospital nurses play a pivotal role in delivering high-quality healthcare services. Research has established a connection between the "voice of the nurse" and enhanced service quality, shaped by organisational factors and the work environment. However, the outcomes of this relationship can vary due to differences in cultural backgrounds, healthcare systems, hospital conditions, and internal factors among nurses. The quality of hospital services involves dimensions such as accessibility, patient safety, and efficiency, all of which are essential in controlling patient costs and preventing extended hospital stays, irrational drug use, or procedural errors. As consumers of health services, patients are increasingly aware of their rights and demand quality health services. The high quality of hospital services is expected to lead to satisfaction and positive patient experiences (Suprapto, 2023). Inefficient hospitals tend to have higher, non-competitive rates, a situation particularly evident in Indonesian hospitals serving BPJS patients, where the payment systems necessitate cost adjustments to align with specified tariffs (Harimurti et al., 2017b; Wiknjopranoto et al., 2024). Hospital operational efficiency, identified as a mediating variable predicting patient outcomes and financial conditions (Cleven et al., 2016) is critical and should be a strategic focus for management to enhance healthcare quality without compromising standards (Jašková, 2021; Jeve, 2018)

Healthcare quality has two key types: clinical quality (outcomes like symptom improvement and reduced complications) and patient experience quality (patients' perceptions of services) (Venkataraman, 2015). Balancing clinical and patient experience quality is challenging due to cost-quality trade-offs. (Chandrasekaran et al., 2012), but it is possible to align service quality with patient experience perspectives (Venkataraman, 2015). Recent studies in private hospitals (Ahmed et al., 2023; Ilangakoon et al., 2022) have shown that lean management efficiency processes directly impact medical staff performance. However, research on efficiency from the nursing perspective remains limited, underscoring the novelty and importance of this study. Therefore, this study links nurses' active roles, involvement, and responsibilities with patient-oriented efficiency processes.

Nurses' responsibilities have been a significant research topic, validated through questionnaires. (Oldland et al., 2020, 2021), providing insights into their perceptions of service quality. However, these studies have not directly tested the five domains within a structural model nor considered internal nurse factors such as intrinsic motivation, personality, knowledge, and orientation (Jia et al., 2023). In hospital settings, where nurses predominantly provide inpatient care, their empathy is crucial to investigate and measure (Yu & Kirk, 2009), as it significantly influences nursing service performance (Moreno-Poyato & Rodríguez-Nogueira, 2021).

This study explores cognitive empathy as a moderating variable for nurse roles and responsibilities, which include promoting patient safety, evidence-based practice, positive interpersonal behaviour, patient-centred care, and clinical governance, and links these to hospital operational efficiency. The model aims to explain and predict the quality of healthcare delivery from the nurses' perspective in private hospitals. It also aims to examine the impact of these five independent variables on hospital efficiency, with cognitive empathy as a moderator, and its effect on quality care delivery in private hospitals in Jakarta.

Based on this conceptual framework, this research proposes the following hypotheses:

H1: Promotion of patient safety has a positive effect on hospital operational efficiency.

H2: Evidence-based practice has a positive effect on hospital operational efficiency.

H3: Patient-centred care has a positive effect on hospital operational efficiency

H4: Positive interpersonal behaviour has a positive effect on hospital operational efficiency.

H5: Clinical governance has a positive effect on hospital operational efficiency.

H6: Cognitive empathy moderates the effect of the promotion of patient safety on hospital operational efficiency.

H7: Cognitive empathy moderates the effect of evidence-based practice on hospital operational efficiency.

H8: Cognitive empathy moderates the effect of patient-centred care on hospital operational efficiency.

H9: Cognitive empathy moderates the effect of positive interpersonal behaviour on hospital operational efficiency.

H10: Cognitive empathy moderates the effect of clinical governance on hospital operational efficiency.

H11: Hospital operational efficiency positively impacts the delivery of quality care.

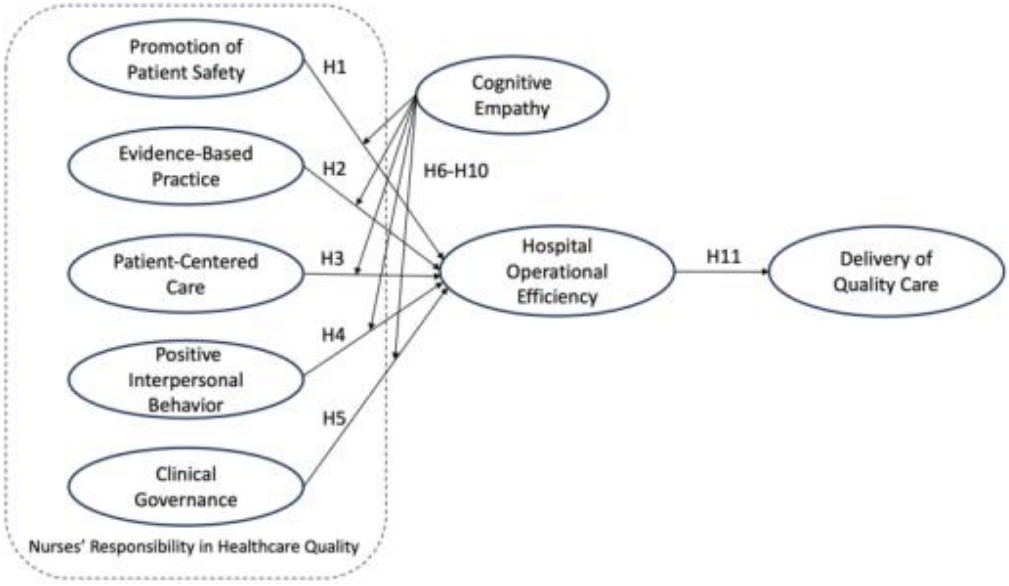

Figure 1: Conceptual Framework

RESEARCH METHODS

This quantitative survey research examines nurses at private hospitals in Jakarta, focusing on delivering quality care as the dependent variable, projected by hospital operational efficiency. This efficiency mediates five independent variables: promotion of patient safety, evidence-based practice, positive interpersonal behaviour, patient-centred care, and clinical governance, with cognitive empathy as a moderating variable.

The study collects primary data from nurses through a non-interventional survey using structured questionnaires. Conducted in a private Type C hospital in Jakarta, this cross-sectional study gathered data in December 2023. Research variables are measurable objects with varying values (Bougie & Sekaran, 2019). The model includes one dependent, five independent, and one moderating variable, all measured on a metric scale through latent variables and manifest indicators (Sarstedt et al., 2022a).

The conceptual framework of this study is adapted from previous research (Oldland et al., 2021, 2020), focusing on nurse roles and responsibilities across five independent variables: patient safety, evidence-based practice, positive interpersonal behaviour, patient-centred care, and clinical governance. The dependent variable, delivery of quality care, is adopted from Prakash and Srivastava (2019) and Chen et al., (2020). The mediating variable, hospital operational efficiency, is sourced from (Cleven et al., 2016) and (Zimlichman et al., 2016)

The moderating variable, cognitive empathy, is adopted from several prior studies (Dağ et al., 2022; Du et al., 2022; Gamble et al., 2023; Pérez-Fuentes et al., 2020). Cognitive empathy refers to how well a person can understand others' emotions, also known as empathic accuracy.

It involves the ability to understand others' thoughts and feelings. This study defines cognitive empathy as the nurse's ability to sense patients' thoughts and feelings from their subjective perspective (Yu & Kirk, 2009). The conceptual framework used in this study can be viewed in Figure 1.

The study population consists of nurses with over a year of experience in Type C private hospitals in Jakarta. Employing non-probability purposive sampling due to the lack of a sampling frame (Bougie and Sekaran, 2019), the criteria included nurses working in patient-interactive units like outpatient and inpatient wards. Following guidelines for multivariate research using Partial Least Squares—Structural Equation Modelling (PLS-SEM) 4 (Hair et al., 2022; Sarstedt et al., 2022b), the sample size was set at 208 respondents.

In this study, hypothesis testing is conducted by evaluating the inner or structural model. This analysis assesses the significance and coefficients between latent variables in the research model using SmartPLS4® (Hair et al., 2022; Sarstedt et al., 2023).

2. RESULTS & DISCUSSION

Descriptive Analysis of Respondents. According to the research, approximately 62% of the respondents are under 35, while only 16% are above 45. This age distribution may relate to the respondents' work experience as nurses. Work experience influences the ability to provide comprehensive evaluations. Younger nurses are generally more open to learning new things and adapting to their work environment. Half of the respondents work in inpatient wards, while the remainder are employed in outpatient clinics and other service units. This should be noted when interpreting the data, as inpatient ward nurses have more opportunities for patient interaction.

Additionally, 51% of respondents have a diploma in nursing, while only 46% hold a bachelor's degree. This difference could affect respondents' medical knowledge and their ability to learn new skills at work. The majority, 81%, have worked at the hospital for less than ten years, with only 24% having less than 3 years of experience. These respondents are familiar with the organisational culture, work environment, and business strategies set by the hospital's top management. Thus, they can be regarded as representative sources of information regarding their roles and responsibilities in improving hospital service quality.

Inferential Analysis

Outer Model (Measurement Model) Result

Indicator Reliability. Ensuring the reliability and validity of indicators in this research model is important. Figure 2 is the measurement model or outer model in PLS-SEM. this step verifies the suitability of these indicators for measuring latent variables. This model includes 33 reflective indicators from 8 variables; three—EBP4, DQC3, and COGEMP4—were eliminated. The Cronbach alpha values for 10 variables exceed 0.7, confirming construct reliability.

Construct Reliability. This research analysis shows that Cronbach's alpha values for all variables exceed 0.7, with composite reliability values above 0.7 and none exceeding 0.95. Point of estimate reliability values also exceed 0.7. These results is above 0.7 and confirm acceptable internal consistency, indicating the measurement model is reliable.

Construct Validity. According to the research, the AVE values for all variables exceed 0.50, indicating each construct explains more than 50% of its variance. The lowest AVE is 0.595 for patient relationships, confirming the indicators' validity. Most reflective indicators have outer loading values above 0.708, except for PCC4, which is retained due to its acceptable value of 0.666. Thus, all constructs have reliable indicators for measuring their respective constructs.

Discriminant Validity: This research results shows that HTMT ratios are below 0.9, with the highest at 0.893 between evidence-based practice and clinical governance, confirming satisfactory discrimination. Thus, indicators for the eight variables appropriately measure their constructs. The measurement model is reliable, valid, and ready for inner model testing with confirmed indicator reliability, construct reliability, construct validity, and discriminant validity. This study uses the Heterotrait-Monotrait (HTMT) Ratio ((Hair et al., 2022; Henseler et al., 2015; Sarstedt, Radomir, et al., 2022). A ratio below 0.9 indicates no discriminant validity issues.

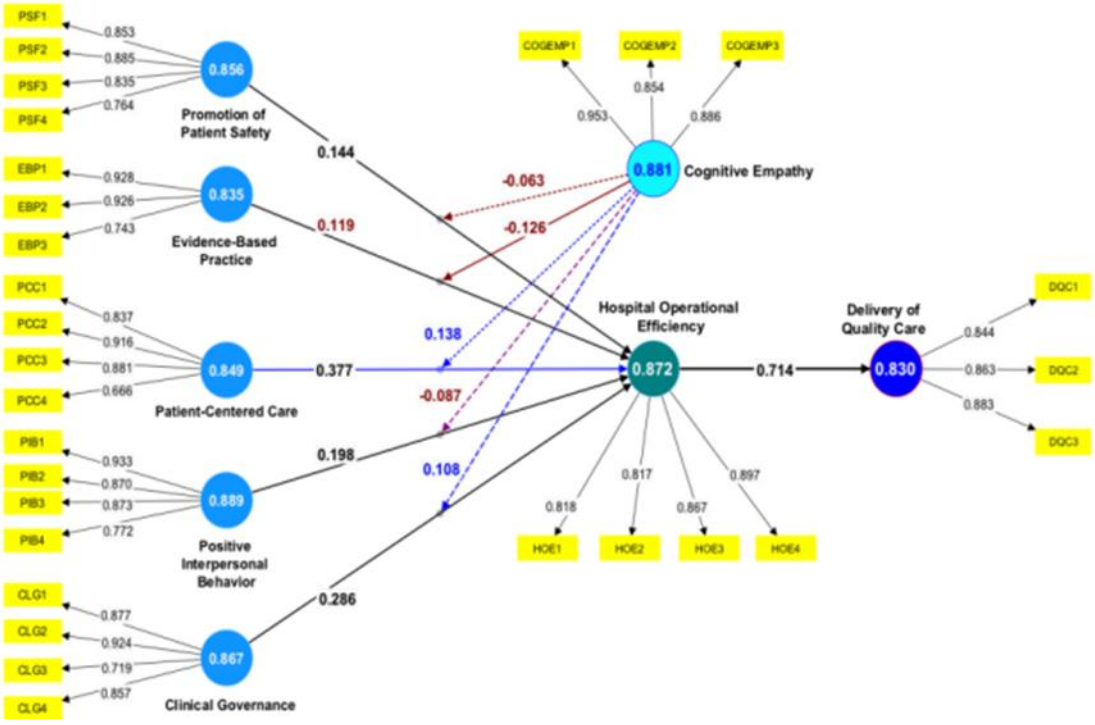

Figure 2. Outer model (Measurement Model)

Source: Pls-Sem Data Analysis (2023)

Inner Model (Structural Model) Results

Following the outer model evaluation, the next phase in PLS-SEM analysis is assessing the inner or structural model (Figure 2). This step measures the model's explanatory and predictive capabilities using R2, f2, Q2_predict values, and hypothesis testing with one-tailed bootstrapping using SmartPLS®4 software. Model quality factors such as VIF, R-square, f-square, and Q-square prediction are examined. The bootstrapping calculation reveals significance levels, indicated by p-values along 11 paths, including 5 moderation paths. All pathways have a p-value ≤ 0.05, confirming significant effects. Based on guidelines by Hair et al., (2022) and Sarstedt et al., (2022a), these evaluations ensure the model's explanatory power and validity.

R-squared and Effect Size Value. This research analysis shows that the R2 value for Delivery of Quality Care is 0.510 (p-value 0.000), indicating moderate explanatory power, while for Hospital Operational Efficiency, it is 0.753 (p-value 0.000), indicating substantial explanatory power. This supports Donabedian's (1988) SPO theory, which shows that hospital operational efficiency is significantly influenced by factors relating to organisational structure. The f2 value assesses the impact of removing a predictor on the change in R2. Cohen (2013) categorises f2 values as negligible (<0.02), small (0.02-0.15), and large (>0.35). Patient-centred care has a large effect size on hospital operational efficiency, while other variables have small effects. Hospital operational efficiency has an f2 of 1.040 on the delivery of quality care, indicating a large effect size and its crucial role in enhancing healthcare quality.

Hypothesis Testing Results

Hypothesis Testing Results for Hospital Operational Efficiency. This research hypothesis testing results for the five independent variables impacting hospital operational efficiency (H1, H2, H3, H4, H5) are supported, as detailed in Table 01. This indicates that the null hypotheses are rejected, and the alternative hypotheses are accepted based on p-values less than 0.05. The standardised coefficients for H1, H2, H3, H4, and H5 are positive, indicating a positive influence on hospital operational efficiency.

These findings validate the significance and directional impact of the independent variables. Among them, patient-centred care (H3) has the strongest influence with a standardised coefficient of 0.377, followed by clinical governance at 0.286 and evidence-based practice at 0.119. All five organisational factors —promotion of patient safety, evidence-based practice, positive interpersonal behaviour, patient-centred care, and clinical governance—show statistically significant influences.

These results align with previous research (Jeve, 2018; Oldland et al., 2020, 2021) and support the concept that organisational efforts to improve service quality can enhance hospital efficiency. The study also confirms that nurses' understanding of their roles significantly affects healthcare quality (Jia et al., 2023). Additionally, it highlights that nurses' perceptions of patient-centred care and clinical governance are crucial for improving hospital service quality through efficient processes.

Table 1. Hypotheses Testing Result (H1 – H5)

Hypotheses	Standardized	P-Values	Confidence Interval	Result

		Coefficient		Lower 5.0%	Upper 95.0%	
H1	Promotion of patient safety -> Hospital operational efficiency	0,144	0,001	0,074	0,226	Supported
H2	Evidence-based Practice -> Hospital operational efficiency	0,119	0,020	0,025	0,215	Supported
H3	Patient-centered care -> Hospital operational efficiency	0,377	0,000	0,300	0,452	Supported
H4	Positive interpersonal behavior -> Hospital operational efficiency	0,198	0,000	0,112	0,275	Supported
H5	Clinical governance -> Hospital operational efficiency	0,286	0,000	0,179	0,404	Supported

Source: PLS-SEM Data Analysis (2023)

A supportive environment for promoting patient safety encourages greater commitment to efficiency efforts, as shown by the influence of a palpable safety culture on medical staff behaviour toward organisational goals. (Schein, 1990).

Hypothesis Testing Results for Moderating Variable on Hospital Cognitive Empathy

Hypotheses H6 through H10 (Table 02) evaluated the moderation role of cognitive empathy, which assesses nurses' ability to empathise with patients. The analysis, conducted with a one-tailed test at a significance level of 0.05, supported H7, H8, H9, and H10 but not H6. The H7, H8, H9, and H10 showed significant cognitive empathy moderation with p-values below 0.05 and confidence intervals not encompassing zero. H6 was not supported, with a p-value of 0.122 and a confidence interval including zero.

The standardised coefficients for the supported hypotheses varied. Negative coefficients were found in H7 (-0.126) and H9 (-0.081), while positive coefficients appeared in H8 (+0.138) and H10 (+0.108). This suggests that cognitive empathy can weaken and strengthen the impact of independent variables. These findings align with previous research, indicating that cognitive empathy moderates individual performance and affects service quality (Gamble et al., 2023).

However, excessive empathy may negatively impact operational efficiency, particularly in evidence-based practice and positive interpersonal behaviour.

Moderation Analysis of Cognitive Empathy

Cognitive empathy moderates the impact of various constructs on hospital operational efficiency but with mixed outcomes:

- **Promotion of Patient Safety**: Cognitive empathy was found to weaken the effect of evidence-based practice on hospital operational efficiency. However, this was not statistically significant, lacking sufficient evidence for a confirmed moderating role. Descriptive data suggested that respondents valued patient safety, but younger, less experienced nurses may

not have encountered many medical error cases, affecting their empathy's impact on safety culture.

- **Evidence-Based Practice**: Increased cognitive empathy corresponded with a weakened influence of evidence-based practice on operational efficiency. This may relate to the mostly young, less experienced nurses relying heavily on established guidelines and procedures, potentially stifling their confidence in interacting assertively with doctors and affecting their adherence to evidence-based practices.

Table 2. Hypothesis Testing Result (H6 – H10)

Hypotheses		Standardized Coefficient	P-Values	Confidence Interval		Result
				Lower 5.0%	Upper 95.0%	
H6	Cognitive empathy x Promotion of patient safety -> Hospital operational efficiency	-0,063	0,122	-0,152	0,024	Not supported
H7	Cognitive empathy x Evidence-based Practice -> Hospital operational efficiency	-0,126	0,016	-0,232	-0,039	Supported
H8	Cognitive empathy x Patient-centered care -> Hospital operational efficiency	0,138	0,001	0,067	0,208	Supported
H9	Cognitive empathy x Positive interpersonal behavior -> Hospital operational efficiency	-0,087	0,031	-0,167	-0,014	Supported
H10	Cognitive empathy x Clinical governance -> Hospital operational efficiency	0e,108	0,043	0,017	0,222	Supported

Source: PLS-SEM Data Analysis (2023)

- **Patient-Centred Care**: Here, cognitive empathy strengthened its influence on operational efficiency, consistent with expectations and previous research. Nurses with higher empathy levels are likely to interact more attentively with patients, prioritising patient needs, which in turn enhances care quality.
- **Positive Interpersonal Behaviours**: Contrary to expectations, greater cognitive empathy weakened the influence of positive interpersonal behaviour on operational efficiency. This could be due to younger nurses' tendency to conform to group norms and directives from superiors, potentially inhibiting proactive behaviours that support operational efficiency.
- **Clinical Governance**: Cognitive empathy significantly strengthened clinical governance's impact on operational efficiency, suggesting that empathetic nurses are more likely to prioritise patient interests and adhere more diligently to clinical governance standards.

These findings highlight the need for hospital management to foster an environment that supports effective, empathetic engagements without compromising operational efficiency or clinical governance.

Hypothesis Testing Results of Hospital Operational Efficiency on The Delivery of Quality Care

Hypothesis H11 examines the impact of hospital operational efficiency on delivering quality care. Hypothesis 11 is supported based on a p-value of 0.000 < 0.05 and a confidence interval (CI) range with a lower bound of 0.673 and an upper bound of 0.755 confirming the significance of the effect.

The standardised coefficient for H11 is positive, supporting the hypothesis that increased hospital operational efficiency enhances patient care quality as perceived by nurses. A coefficient value of 0.714 and an f2 value above 0.35 indicates a substantial impact.

These findings align with previous research (Oldland et al., 2020, 2021), suggesting that nurses' roles significantly influence hospital service quality and efficiency processes can coexist with quality improvements.

The results confirm the importance of balancing cost-quality controls to enhance overall hospital performance. This study confirms Donabedian's SPO theory in improving efficiency and service quality in Type C private hospitals, highlighting that cognitive empathy significantly moderates the effects of patient-centred care and clinical governance. This suggests that individual factors can strengthen nurses' roles in efficiency processes, opening avenues for research into other internal factors like personal orientation and motivation.

Discussions

The study explores the critical role of organisational factors in defining nurses' roles and responsibilities and their impact on delivering quality care in private hospitals. Utilising Donabedian's Structure-Process-Outcome (SPO) model (1988) and Schein's organisational culture theory, the research confirms all eleven hypotheses, offering robust empirical evidence that the model effectively predicts quality care delivery. The findings emphasise the importance of organisational, operational, and environmental factors in helping nurses understand their responsibilities, including promoting patient safety, evidence-based practice, positive interpersonal behaviour, patient-centred care, and clinical governance (Oldland et al., 2020, 2021). These elements are directly linked to hospital operational efficiency, with patient-centred care and clinical governance emerging as the most dominant factors. This highlights their significance in hospital efficiency and underscores the necessity of nurse engagement in organisational practices that prioritise patient-centred approaches and robust clinical governance systems.

The study draws comparisons with previous research, suggesting that the dominance of patient-centred care and clinical governance may be due to the competitive nature of private hospitals

focused on superior service delivery and patient satisfaction. The lower emphasis on evidence-based practice is linked to the demographic profile of respondents, predominantly younger nurses with diploma-level education and less work experience. This indicates that evaluating nurses' roles and responsibilities in organisational quality service requires considering their background, competencies, and expertise. Cognitive empathy is found to enhance the impact of patient-centred care and clinical governance on quality and cost-control processes, though it also acts as a negative moderator, likely due to the younger age of the nurses (Gamble et al., 2023; Leana et al., 2018). The findings support the importance of developing empathy in nursing education and practice.

Expanding on previous research, the study incorporates hospital operational efficiency as a variable, supporting the coexistence of efficiency processes with quality improvement in hospitals. The results reaffirm the need for management to balance quality and cost controls to enhance overall hospital performance and confirm the applicability of Donabedian's SPO theory to efficiency and quality improvement in Type C private hospitals.

For hospital management, organisational empowerment is crucial for long-term business strategies. This empowerment should involve nurses, recognized as key contributors to hospital performance. The study supports previous findings that nurses play a vital role in patient safety and the implementation of effective clinical governance (Brunero et al., 2022; Du et al., 2022; Yu & Kirk, 2009). The focus on empowering organisational structures emphasises human resources, positioning nurses as central to delivering quality care (Altmiller, 2011; Seo & Lee, 2022; Vaismoradi et al., 2020) .

To enhance operational efficiency and quality of care, hospital management can implement several key strategies. Continuous education on the importance of operational efficiency for better quality care and cost savings is essential (Andy et al., 2022; Chen et al., 2020; Zoromba & El-Gazar, 2021). Emphasising patient-centred care, clinical governance, and patient safety ensures that nurses adhere to guidelines and promptly address medical errors (Sadeghi-Bazargani et al., 2015; Samit & Musheer Hussain, 2018). Active involvement in committees, like medical, patient safety, and quality committees, should be optimised to guide safety programs and maintain service standards through regular evaluations. Creating a conducive work environment by encouraging teamwork, facilitating team-building activities, and being open to nurse feedback, especially in high-demand areas like intensive care and emergency units, is crucial.

Lastly, addressing individual factors by focusing on nurses' personal and motivational aspects, developing personal skills, and fostering cognitive empathy can improve patient communication and satisfaction while balancing empathy to avoid overly emotional responses. These strategies aim to enhance operational efficiency, and the quality-of-care nurses deliver, contributing to overall hospital performance. Click or tap here to enter text.Click or tap here to enter text.Click or tap here to enter text.Click or tap here to enter text. and the implementation of effective clinical governance The focus on empowering organizational structures emphasises

human resources. This is manifested in the understanding of the roles and responsibilities of nurses working in hospitals, positioning them as central to delivering quality care.

Hospital management can enhance operational efficiency and quality of care by implementing several key strategies. First, nurses should be continuously informed about the importance of operational efficiency for better quality care and cost savings, such as reduced waiting times and shorter hospital stays. Emphasising patient-centred care, clinical governance, and patient safety is crucial; ensuring nurses adhere to guidelines and promptly addressing medical errors can prevent complications and costs.

Active involvement in committees, like medical, patient safety, and quality committees, should be optimised to guide safety programs and maintain service standards through regular evaluations. Additionally, creating a conducive work environment by encouraging teamwork, facilitating team-building activities, and being open to nurse feedback, especially in high-demand areas like intensive care and emergency units, is essential. Lastly, addressing individual factors by focusing on nurses' personal and motivational aspects, developing personal skills, and fostering cognitive empathy can improve patient communication and satisfaction while balancing empathy to avoid overly emotional responses. These strategies can enhance operational efficiency and the quality of care that nurses deliver, contributing to overall hospital performance.

3. CONCLUSIONS & SUGGESTIONS

This study explored the relationship between nurses' roles, hospital operational efficiency, and the delivery of quality care within the context of cost-quality control managed by hospital administration. Hospital operational efficiency strongly impacts the delivery of quality care, with higher nurse perceptions correlating with improved quality care. The model demonstrated moderate to strong explanatory power and large predictive relevance, confirming its ability to predict quality care delivery through hospital operational efficiency from the nurses' perspective. Cognitive empathy did not support moderating the influence of patient safety promotion on operational efficiency but showed varying moderation effects on other factors.

RESEARCH LIMITATIONS

A limitation of this study is the reliance on a single hospital as the sample, which may restrict the generalizability of the findings

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