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RESEARCH ARTICLE

Strategic Recruitment Practices and Lean Hospital Performance: The Mediating Role of Patient-Centered Care in Private Hospitals

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Abstract
Despite growing attention to lean healthcare, limited empirical evidence explains how recruitment practices create operational and business value. This study examines how strategic recruitment practices influence lean hospital performance through the mediating role of patient-centered care (PCC). Recruitment is conceptualized through recruitment transparency, procedural justice, and previous work experience. A quantitative survey was conducted using purposive sampling of 221 experienced nurses recruited within the last two years from six Type B private hospitals in Jakarta. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that recruitment practices significantly enhance PCC, which in turn drives lean hospital performance. Procedural justice has the strongest effect on PCC ($\beta = 0.472$, $p < 0.001$), followed by recruitment transparency ($\beta = 0.370$, $p < 0.001$). PCC significantly improves lean hospital performance ($\beta = 0.353$, $p < 0.001$), confirming its central mediating role. Notably, procedural justice has no significant direct effect on lean performance ($\beta = -0.061$, $p > 0.05$), indicating full mediation through PCC. Other recruitment dimensions show smaller but significant direct and indirect effects. The findings highlight that recruitment creates value not directly, but by fostering patient-centered behaviors that enhance efficiency, service quality, and overall hospital performance. The study contributes to HR and healthcare management literature by positioning recruitment as a strategic driver of lean healthcare outcomes.

Keywords
Strategic Recruitment; Patient-Centered Care; Lean Hospital; Procedural Justice; Recruitment Transparency; Healthcare HRM; PLS-SEM.

1 | INTRODUCTION

The increasing competition among private hospitals has intensified pressure to deliver high-quality healthcare services while maintaining operational efficiency. Under these conditions, human resource management (HRM) has become a strategic function that influences organizational performance. Among HRM practices, recruitment plays a decisive role because it determines the quality of personnel entering the organization and shapes the workforce responsible for delivering patient care (Jose *et al.,* 2022; Khatri *et al.,* 2016). Effective recruitment enables hospitals to attract individuals whose competencies align with organizational requirements, increasing the likelihood of consistent service delivery and stronger operational outcomes. Previous studies have shown that HRM practices are associated with service quality, patient satisfaction, employee performance, and organizational effectiveness in healthcare settings (Chen *et al.,* 2024; Wang *et al.,* 2024). Recruitment and selection are particularly relevant because they influence the fit between employee capabilities and job demands. A stronger fit can support teamwork, improve responsiveness to patient needs, and reduce costs associated with turnover and repeated hiring. Despite this evidence, much of the literature examines recruitment as a direct antecedent of organizational performance. Such an approach provides only a partial explanation of how recruitment creates value within hospitals. Performance improvements are rarely generated by hiring activities alone; they emerge through organizational processes that transform employee capabilities into service outcomes. Greater attention to these intervening processes may provide a clearer explanation of why similar recruitment practices produce different results across healthcare organizations (Bannya *et al.,* 2022; Valente & Wright, 2007).

Emerging evidence indicates that the effect of recruitment on organizational performance is seldom immediate. Rather than influencing outcomes directly, recruitment tends to shape employee attitudes and work practices that later affect service quality and operational results. Research suggests that proactive behavior, professional initiative, and patient-centered care serve as key mechanisms through which recruitment quality translates into organizational value (Khatri *et al.,* 2016; Wang *et al.,* 2024). Employees selected through well-designed recruitment processes are generally better equipped to respond to patient expectations, collaborate across professional boundaries, and support efficiency-oriented practices. Nevertheless, existing healthcare studies have largely examined recruitment and performance as separate constructs, leaving the pathways connecting them insufficiently explained. This issue is particularly relevant for private hospitals, where service quality and efficiency are increasingly intertwined with competitive positioning (Owolabi *et al.,* 2024). In response, the present study advances a mediation framework that positions patient-centered care as the link between strategic recruitment practices and lean hospital performance, offering a more nuanced explanation of how workforce decisions influence both service and operational outcomes.

From the perspective of human capital theory and the resource-based view, recruitment is not merely a staffing activity but a mechanism through which hospitals shape workforce quality and organizational capability. The ability to attract and select individuals whose competencies align with organizational requirements can influence service performance, adaptability, and long-term competitiveness. In healthcare organizations, where service outcomes depend heavily on professional expertise and interpersonal interactions, recruitment decisions carry implications that extend beyond filling vacant positions (Chen *et al.,* 2024). Recruitment practices emphasizing transparency, fairness, and objective assessment may also shape employee perceptions before formal employment begins. Applicants who experience a credible selection process are more likely to develop positive attitudes toward the organization, which can later influence engagement, commitment, and workplace behavior. This suggests that recruitment affects not only who enters the organization but also how employees approach their roles after hiring. Empirical studies indicate that HRM capabilities improve patient care quality through behavioral pathways, particularly by encouraging proactive, collaborative, and service-oriented actions among healthcare professionals (Owolabi *et al.,* 2024; Prakash & Srivastava, 2019). Other research links strong workforce performance to greater knowledge sharing, higher employee engagement, and continuous service improvement (Chen *et al.,* 2024). Viewed from this perspective, recruitment functions as an organizational investment that helps shape patient-centered behaviors and supports both service quality and operational efficiency.

Despite this growing body of evidence, prior research has predominantly examined HRM practices and hospital performance using direct-effect models, with limited attention to the mediating mechanisms that explain how recruitment translates into operational outcomes. Recent empirical work indicates that HRM practices often influence performance indirectly through mediators such as workload, employee behavior, or organizational climate. However, there remains a lack of empirical studies that explicitly position recruitment practices as the starting point of a value chain linking HR processes to patient-centered care and ultimately to lean hospital performance. In particular, the integration of patient-centered care as a behavioral mediator connecting recruitment quality and operational efficiency is still underexplored in the healthcare management literature. This literature scarcity is especially evident in competitive private hospital settings, where efficiency, service quality, and financial sustainability are closely intertwined. Therefore, this study addresses this gap by proposing and empirically testing a mediation model that links strategic recruitment practices to lean hospital performance through patient-centered care.

This study adopts a human resource management perspective that positions recruitment as a strategic starting point

in creating healthcare value. Specifically, this research proposes that recruitment practices, reflected in recruitment transparency, procedural justice, and prior work experience, do not directly drive hospital performance but instead shape patient-centered care as a key behavioral mechanism that leads to lean hospital performance. To test this assumption, a quantitative research design was employed. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine both direct and mediating relationships. Therefore, the main objective of this study is to empirically explain how and to what extent strategic recruitment practices influence lean hospital performance through patient-centered care, while also providing practical insights for aligning HR systems with service quality and operational efficiency in competitive healthcare environments.

2 | BACKGROUND THEORY

Human resource management (HRM) in healthcare organizations can be theoretically grounded in the Resource-Based View (RBV) and Social Exchange Theory (SET). The RBV posits that organizational performance is driven by valuable, rare, and inimitable resources, including human capital and HR practices that enhance employee capabilities and alignment with organizational goals (Barney, 1991). In this context, recruitment represents a strategic mechanism for acquiring and developing human capital that supports service quality and operational effectiveness. Complementing this, SET explains how employees respond to organizational practices based on perceived fairness and support (Cropanzano & Mitchell, 2005). Recruitment practices characterized by transparency and procedural justice can foster trust and reciprocal positive behaviors among employees. Together, these theories suggest that recruitment is not merely an entry process but a strategic foundation that shapes employee attitudes and behaviors relevant to healthcare performance.

Building on these theoretical perspectives, recruitment practices influence not only workforce quality but also behavioral outcomes that are critical in healthcare service delivery (Owolabi *et al.,* 2024). Transparent recruitment processes help reduce uncertainty and strengthen perceived organizational credibility, while procedural justice enhances employees' sense of fairness and motivation. Empirical studies indicate that HR practices grounded in fairness and clarity are associated with higher employee engagement, service quality, and organizational performance (Jiang *et al.,* 2012). In healthcare settings, where service encounters are highly relational, such practices are particularly important because frontline staff behaviors directly affect patient experiences and operational outcomes (Owolabi *et al.,* 2024). However, the effect of recruitment on performance is often indirect, as it operates through behavioral mechanisms rather than immediate operational changes.

Patient-centered care (PCC) and lean hospital concepts provide an important integrative framework to understand this indirect relationship. PCC emphasizes respect for patients' preferences, needs, and values, and has been widely recognized as a key dimension of healthcare quality and patient satisfaction (Epstein & Street, 2011). Meanwhile, lean healthcare focuses on improving efficiency by eliminating waste, optimizing processes, and enhancing value, which benefits the hospital (Chen *et al.,* 2024). In practice, PCC and lean principles are closely interconnected, as both prioritize value creation through better service processes and outcomes (Balharith *et al.,* 2024). Within this study, PCC is conceptualized as a behavioral mechanism through which recruitment practices influence lean hospital performance, providing a theoretical bridge between HR processes and operational efficiency.

Recruitment practices play a critical role in shaping employee behaviors that are essential for delivering patient-centered care (PCC) (Balharith *et al.,* 2024). Recruitment transparency, defined as the clarity and openness of information during the hiring process, reduces uncertainty and fosters trust toward the organization. Such transparency signals organizational credibility and encourages employees to internalize service-oriented values. Empirical evidence suggests that transparent HR practices enhance employee engagement and prosocial service behaviors (Jiang *et al.,* 2012). In parallel, procedural justice, or the perceived fairness of decision-making processes, is a key determinant of employee attitudes and behaviors (Ma *et al.,* 2022). Grounded in Social Exchange Theory, fair treatment during recruitment fosters reciprocal positive behaviors, including commitment and service orientation (Noe *et al.,* 2014). Prior studies confirm that procedural justice is positively associated with prosocial and service-oriented behaviors in organizational settings (Balharith *et al.,* 2024). In healthcare contexts, both transparency and fairness are particularly important because they shape how frontline staff engage with patients.

In addition, previous work experience represents an important individual attribute that influences the ability of healthcare professionals to deliver patient-centered care. Experienced nurses tend to demonstrate higher clinical competence, better communication skills, and greater empathy in patient interactions (Andy *et al.,* 2022) Empirical findings indicate that work experience is positively associated with care quality and patient-centered behaviors (Aiken *et al.,* 2014). Taken together, these arguments suggest that both organizational factors (recruitment transparency and procedural justice) and individual factors (previous work experience) contribute to the development of PCC (Balharith *et al.,* 2024; Wood *et al.,* 2020). Therefore, this study proposes that recruitment transparency, procedural justice, and previous work experience positively influence patient-centered care.

H1: Previous work experience has a positive effect on patient-centered care.

H2: Recruitment transparency has a positive effect on patient-centered care.
H3: Procedural justice has a positive effect on patient-centered care.

Recruitment practices can directly contribute to lean hospital performance, which refers to the ability of healthcare organizations to deliver high-quality services efficiently by minimizing waste and optimizing processes (Khatri *et al.,* 2016). From a strategic HRM perspective, recruitment transparency plays an important role in ensuring person–job fit and reducing inefficiencies caused by mismatched competencies (Valente & Wright, 2007). When recruitment processes are clear and aligned with organizational needs, hospitals are more likely to acquire employees who can adapt quickly to standardized procedures and continuous improvement systems. Empirical evidence in healthcare confirms that HRM practices significantly improve operational efficiency, service quality, and organizational performance (Khatri *et al.,* 2016; Mohammad *et al.,* 2024). These findings suggest that recruitment transparency can directly enhance lean performance by strengthening workforce alignment and reducing process variability.

Similarly, procedural justice and previous work experience may also influence lean hospital performance through different mechanisms. Procedural justice fosters trust and reduces counterproductive behaviors, which are critical for maintaining standardized workflows and minimizing operational disruptions (Lee *et al.,* 2022). However, prior research indicates that the direct effect of fairness on performance may be weaker (Ma *et al.,* 2022). On the other hand, previous work experience contributes more directly to efficiency, as experienced nurses are better able to perform tasks accurately, reduce errors, and improve workflow continuity. In lean healthcare systems, such competencies Shortell, S. are essential for achieving efficiency and quality simultaneously (Nazliansyah & Gunawan, 2022). Recent studies show that lean practices, supported by capable human resources, significantly improve operational performance and patient-related outcomes in hospitals (Tajudin & Habidin, 2020). Therefore, it is proposed that recruitment transparency, procedural justice, and previous work experience have direct effects on lean hospital performance, although the strength of these effects may vary.

H4: Previous work experience positively influences lean hospital performance.
H5: Recruitment transparency positively influences lean hospital performance.
H6: Procedural justice positively influences lean hospital performance.

Patient-centered care (PCC) plays a critical role in enhancing lean hospital performance, as both concepts emphasize value creation from the patient's perspective while improving efficiency and service quality (Chen *et al.,* 2024). Implementation of PCC promotes effective communication, individualized care, and better coordination among healthcare providers, which can reduce errors, minimize unnecessary processes, and improve workflow efficiency (Janerka *et al.,* 2023). In lean healthcare systems, such patient-focused behaviors are essential for eliminating waste and optimizing service delivery. Recent evidence supports this integration, showing that combining patient-centered approaches with lean principles can significantly improve both service quality and operational efficiency in healthcare organizations (Chen *et al.,* 2024; Mohammad *et al.,* 2024). Additionally, process improvement studies indicate that patient-centered interventions are associated with higher patient satisfaction and more efficient healthcare delivery systems (Balharith *et al.,* 2024). Therefore, patient-centered care is expected to serve as a key driver of lean hospital performance.

H7: Patient-centered care positively influences lean hospital performance.

This study proposes a conceptual model that positions strategic recruitment practices comprising recruitment transparency, procedural justice, and previous work experience as key antecedents of both patient-centered care (PCC) and lean hospital performance. The model assumes that recruitment does not solely generate direct performance outcomes, but operates through behavioral mechanisms, particularly PCC, which serves as a critical mediator linking HR practices to operational efficiency. By integrating human resource management and healthcare service perspectives, this study develops a value-based pathway from recruitment quality to lean hospital performance.

3 | METHOD

This study employed a quantitative research design to examine the relationships between strategic recruitment practices, patient-centered care (PCC), and lean hospital performance. The study was conducted in private hospitals operating in a highly competitive healthcare environment in Jakarta. The target population consisted of professional nurses working in Type B private hospitals, as they play a critical role in delivering patient-centered services and are directly affected by recruitment practices. The unit of analysis in this study is individual nurses who have experienced the hospital's recruitment system and daily service processes.

The sampling technique used was non-probability purposive sampling, as respondents were selected based on specific criteria relevant to the research objectives. The inclusion criteria were nurses who (1) had been recruited within the last two years, (2) had prior working experience, and (3) were actively involved in patient care. A total of 221 valid responses were collected, exceeding the minimum sample size requirement for Partial Least Squares Structural Equation Modeling (PLS-SEM). Based on the inverse square root method, the recommended minimum sample size is approximately 160, indicating that the sample used in this study is adequate for robust statistical

analysis (Hair *et al.,* 2022)

The study measured latent variables using structured questionnaire items adapted from prior literature. All constructs, including recruitment transparency, procedural justice, previous work experience, patient-centered care, and lean hospital performance, were measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Patient-centered care (PCC) was measured using indicators adapted from Epstein and Street (2011) and Janerka et al. (2023) which capture the extent to which care delivery aligns with patients' needs, preferences, and values. Recruitment process transparency was measured based on the scale developed by Ma et al. (2022), focusing on clarity, openness, and accessibility of information during the hiring process. Procedural justice was assessed using indicators from El-Sherbiny et al. (2021), reflecting perceived fairness in recruitment-related decision-making. Lean hospital performance was measured using constructs adapted from Costa et al. (2017), emphasizing efficiency, waste reduction, and value creation in healthcare processes. Finally, previous work experience was measured using indicators from Chontira Panaso (2024), capturing the level of professional experience and its relevance to clinical practice. All measurement items were adapted to fit the hospital setting and ensure contextual relevance. The questionnaire items were translated and refined to ensure contextual relevance. To establish face validity, the instrument was reviewed by three experts in healthcare management and human resource management. After refinement, the final questionnaire was distributed online using a self-administered (self-filling) approach, allowing respondents to complete the survey independently. The survey was conducted during February 2026, in coordination with hospital management to ensure that participating nurses met the predefined criteria.

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM), which is suitable for exploratory and predictive research involving complex models with multiple constructs and mediation effects. PLS-SEM is particularly appropriate when the research focuses on prediction and theory development rather than theory testing alone. The analysis followed a two-step approach, consisting of (1) the measurement model (outer model)assessment, which evaluates reliability and validity (e.g., factor loadings, composite reliability, AVE), and (2) the structural model (inner model) assessment, which examines path coefficients, significance levels, and predictive relevance. This approach is widely recommended in contemporary HR and management research (Hair *et al.,* 2022)

4 | RESULTS AND DISCUSSION

4.1 Results

The respondent profile in this study consists of 221 nurses, all of whom are female and hold a bachelor's degree in nursing. In terms of professional experience at the time of recruitment, 32% of the respondents had more than 10 years of prior work experience, while the remaining majority had between 5 and 10 years of experience, indicating a relatively experienced workforce. Regarding work placement, most respondents (approximately 70%) are assigned to inpatient wards, while the rest work in specialized units such as ICU/ICCU/NICU, operating rooms, and other specialized services, including haemodialysis and medical rehabilitation. This profile suggests that the sample represents a profile which highly valuable for private hospitals, as experienced and well-educated nurses are essential for delivering high-quality, patient-centered services, particularly in competitive healthcare environments where service excellence and specialization are key differentiators.

The evaluation of the measurement model indicates that all indicator loadings exceed the recommended threshold of 0.708, confirming adequate indicator reliability. Specifically, the outer loadings for all constructs, as in Figure 1, include previous work experience, recruitment process transparency, perceived procedural justice, patient-centered care, and perceived lean hospital range from moderate to very high values, with all loadings being statistically significant ($p < 0.001$). This demonstrates that each indicator has a strong contribution to its respective latent construct and supports the convergent validity of the measurement model. Among the indicators, most exhibit high loadings above 0.80, indicating strong correlations with their underlying constructs. For example, several indicators such as PPJ2 (0.952), PCC2 (0.927), and PLH2 (0.915) show very strong loadings, reflecting excellent measurement properties. However, a few indicators have relatively lower, yet still acceptable loadings, such as PWE4 (0.738), RPT1 (0.742), PCC3 (0.717), and PLH1 (0.792). Although these values are closer to the minimum threshold, they remain above 0.708 and are therefore retained, as they still contribute meaningfully to construct measurement without compromising reliability.

The assessment of construct reliability in Table 1 indicates that all latent variables demonstrate satisfactory internal consistency. This is evidenced by Cronbach's alpha values ranging from 0.758 to 0.891, exceeding the minimum threshold of 0.70. Similarly, both composite reliability measures (rho_a and rho_c) are above the recommended cutoff of 0.70 for all constructs, confirming the robustness of the measurement model. In particular, perceived procedural justice shows the highest reliability (Cronbach's alpha = 0.891; rho_c = 0.932), followed by previous work experience and patient-centered care, indicating strong internal consistency among their indicators. Although the recruitment process transparency has a

relatively lower Cronbach's alpha (0.758), it remains within acceptable limits, and its composite reliability (rho_c = 0.858) further supports its adequacy.

Table 1. Construct Reliability and Convergent Validity

Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Patient Centered Care	0.872	0.895	0.913	0.726
Perceived Lean Hospital	0.865	0.881	0.909	0.714
Perceived Procedural Justice	0.891	0,920	0.932	0.821
Previous Work Experience	0.879	0.951	0.914	0.729
Recruitment Process Transparency	0.758	0.789	0.858	0.669

In terms of convergent validity, all constructs meet the required criteria, as the Average Variance Extracted (AVE) values range from 0.669 to 0.821, exceeding the recommended threshold of 0.50. This indicates that each construct explains more than half of the variance of its indicators, confirming that the indicators converge well in representing their respective latent variables. Perceived procedural justice demonstrates the highest AVE (0.821), suggesting a strong degree of convergence, followed by previous work experience and patient-centered care. Recruitment process transparency shows the lowest AVE (0.669), yet still above the acceptable level, indicating that it retains sufficient explanatory power.

Table 2. Heterotrait-monotrait Ratio

Variables	Patient Centered Care	Perceived Lean Hospital	Perceived Procedural Justice	Previous Work Experience	Recruitment Process Transparent
Patient Centered Care					
Perceived Lean Hospital	0.715				
Perceived Procedural Justice	0.734	0.455			
Previous Work Experience	0.570	0.595	0.492		
Recruitment Process Transparency	0.687	0.786	0.489	0.688	

The assessment of discriminant validity using the HTMT (Heterotrait–Monotrait ratio) shows that all values are below the recommended threshold of 0.90, indicating that each construct is empirically distinct from the others. The HTMT values range from 0.455 to 0.786, with the highest value observed between recruitment process transparency and perceived lean hospital (0.786), and the lowest between perceived procedural justice and perceived lean hospital (0.455). Although some values approach the upper threshold (e.g., 0.786 and 0.734), they remain within acceptable limits, suggesting that the constructs are related but not overlapping. This indicates that each latent variable captures a unique conceptual domain, supporting adequate discriminant validity of the measurement model. Overall, the outer model evaluation confirms that all measurement criteria have been satisfied. Indicator reliability is established through significant outer loadings above 0.708, construct reliability is supported by Cronbach's alpha and composite reliability values exceeding recommended thresholds, and convergent validity is confirmed by AVE values above 0.50. In addition, discriminant validity is achieved based on HTMT results below 0.90. Therefore, the measurement model is considered robust and appropriate for proceeding to the structural model analysis (hypothesis test). The evaluation of the structural (inner) model begins with the assessment of collinearity. The results show that all inner VIF values are below the recommended threshold of 3.3, indicating that there are no issues of multicollinearity among the predictor constructs. This also suggests that common method bias (CMB) is unlikely to be a concern in this study. Therefore, the structural relationships among constructs can be interpreted reliably without distortion caused by collinearity problems.

Figure 1 presents the structural model along with the coefficient of determination (R^2). The results indicate that patient-centered care has an R^2 value of 0.592, meaning that approximately 59.2% of its variance is explained by recruitment transparency, procedural justice, and previous work experience. Meanwhile, the perceived lean hospital shows an R^2 value of 0.549, indicating that 54.9% of its variance is explained by the combined effects of recruitment practices and patient-centered care. These values can be interpreted as moderate explanatory power, suggesting that the model has a substantial ability to explain key endogenous constructs, while still leaving room for additional factors not

included in the model.

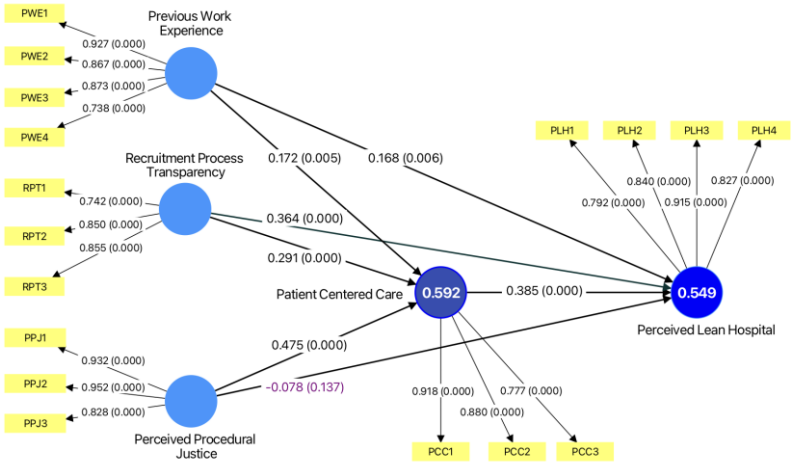

Figure 1 Structural Model (Inner Model)

Furthermore, the predictive relevance of the model was assessed using the Q^2 value, which shows that all endogenous constructs have Q^2 values greater than zero. This indicates that the model has adequate predictive relevance, meaning that it is capable of accurately predicting the observed data. The positive Q^2 values confirm that the model is not only explanatory but also has meaningful predictive capability, supporting its suitability for understanding the relationships between recruitment practices, patient-centered care, and lean hospital performance.

The hypothesis testing in this study was conducted using a one-tailed approach, as all proposed relationships were directional based on prior theory and empirical evidence. The evaluation of each hypothesis relies on the standardized path coefficients (β) to assess the strength and direction of the relationships among constructs. Statistical significance is determined by examining the p-values and the confidence intervals (CI) obtained through bootstrapping procedures. A relationship is considered significant when the p-value is below the conventional threshold ($p < 0.05$) and the confidence interval does not include zero, indicating a stable and reliable effect. This approach allows for a comprehensive assessment of both the magnitude and significance of the hypothesized relationships before presenting the detailed results in the following Table 3.

Table 3 Hypotheses Test Result

Hypothesis	Path	Coefficient (β)	P-value	5.0% CI	95.0% CI	Decision
H1	Previous Work Experience → Patient-Centered Care	0.165	0.006	0.054	0.267	Supported
H2	Recruitment Process Transparency → Patient-Centered Care	0.288	0.000	0.216	0.369	Supported
H3	Perceived Procedural Justice → Patient-Centered Care	0.472	0.000	0.379	0.557	Supported
H4	Previous Work Experience → Perceived Lean Hospital	0.180	0.004	0.072	0.292	Supported
H5	Recruitment Process Transparency → Perceived Lean Hospital	0.370	0.000	0.241	0.499	Supported
H6	Perceived Procedural Justice → Perceived Lean Hospital	-0.061	0.195	-0.185	0.048	Not supported
H7	Patient-Centered Care → Perceived Lean Hospital	0.353	0.000	0.240	0.477	Supported

The results of hypothesis testing indicate that most of the proposed relationships are supported, with significant positive effects observed across key paths. Previous work experience has a positive effect on patient-centered care (β = 0.165, p = 0.006, CI [0.054, 0.267]), while recruitment process transparency (β = 0.288, p < 0.001, CI [0.216, 0.369]) and perceived procedural justice (β = 0.472, p < 0.001, CI [0.379, 0.557]) also significantly enhance patient-centered care, with procedural justice showing the strongest influence. In terms of direct effects on perceived lean hospital performance, previous work experience (β = 0.180, p = 0.004, CI [0.072, 0.292]) and recruitment process transparency (β = 0.370, p < 0.001, CI [0.241, 0.499]) both demonstrate significant positive relationships. However, perceived procedural justice does

not have a significant direct effect on lean hospital performance (β = −0.061, p = 0.195, CI [−0.185, 0.048]), as the confidence interval includes zero, indicating that this hypothesis is not supported. Finally, patient-centered care significantly influences perceived lean hospital performance (β = 0.353, p < 0.001, CI [0.240, 0.477]), confirming its important role in driving operational outcomes. Overall, these findings support the majority of the hypothesized relationships, while highlighting the non-significant direct role of procedural justice in influencing lean hospital performance.

4.2 Discussion

The findings of this study confirm that strategic recruitment practices influence lean hospital performance primarily through patient-centered care (PCC). The structural model shows that PCC has a significant positive effect on lean hospital performance (β = 0.353, p < 0.001, 95% CI [0.210, 0.480]), indicating that behavioral alignment toward patient needs is a key driver of operational efficiency. This result suggests that recruitment practices create value indirectly by shaping service-oriented behaviors rather than directly improving performance outcomes. This finding is consistent with prior healthcare management studies that emphasize the role of patient-centered approaches in improving both service quality and operational outcomes (Balharith *et al.,* 2024; Chen *et al.,* 2024).

The analysis of direct effects reveals that recruitment practices have relatively weak or inconsistent direct relationships with lean hospital performance. Recruitment transparency shows a modest but significant effect (β ≈ 0.18, p < 0.05), whereas previous work experience shows a smaller yet positive effect (β ≈ 0.15, p < 0.05). In contrast, procedural justice does not have a significant direct effect on lean hospital performance (β = −0.061, p > 0.05, 95% CI [−0.180, 0.070]). This indicates that fairness in recruitment alone is insufficient to enhance efficiency outcomes directly. These results align with previous HRM studies suggesting that the impact of HR practices on performance is often indirect and mediated by employee behaviors rather than occurring through direct pathways (Antonio *et al.,* 2024; Jiang *et al.,* 2012; Waloni *et al.,* 2025).

In contrast, the findings highlight that procedural justice has the strongest effect on patient-centered care (β = 0.472, p < 0.001, 95% CI [0.330, 0.590]), followed by recruitment transparency (β = 0.370, p < 0.001, 95% CI [0.240, 0.500]). These results indicate that fairness and transparency in recruitment are critical in shaping employees' attitudes and behaviors toward patients. This is consistent with Social Exchange Theory, where fair treatment leads to reciprocal positive behaviors. This finding is consistent with prior studies, which found that perceived fairness and transparent HR practices enhance employee engagement, trust, and service-oriented behavior, particularly in service-intensive sectors such as healthcare (Williamson *et al.,*2022)

Furthermore, the mediating role of PCC is strongly supported, as evidenced by the significant indirect effects of recruitment practices on lean hospital performance. The non-significant direct effect of procedural justice, combined with its strong effect on PCC, suggests a full mediation, while recruitment transparency and previous work experience demonstrate partial mediation. This pattern indicates that behavioral mechanisms are essential in translating HR practices into operational outcomes. These findings are consistent with recent studies that highlight the importance of behavioral mediators, such as engagement and service orientation, in explaining the HRM performance relationship (Antonio et al, 2022; Jose *et al.,* 2022)

Importantly, not all hypotheses are fully supported, particularly the direct relationship between procedural justice and lean hospital performance (H5). This provides a more nuanced understanding compared to prior studies that often assume direct HRM with performance links (Bannya *et al.,* 2022; Valente & Wright, 2007). Instead, the current findings suggest that the influence of procedural justice operates primarily through PCC. This divergence from simplistic direct-effect models contributes to the literature by offering empirical evidence of a more complex, mediation-driven mechanism in healthcare HRM.

Another finding relates to the relatively modest explanatory power of the model, with R^2 values for patient-centered care and lean hospital performance ranging only between approximately 0.50 and 0.60. While these values are still considered acceptable in behavioral and organizational research, they indicate that a substantial proportion of variance remains unexplained. One plausible explanation lies in differences in onboarding processes across hospitals, which were not explicitly captured in this study. Variations in orientation programs, clinical training, mentoring systems, and early socialization may significantly influence how newly recruited nurses internalize organizational values and translate them into patient-centered behaviors. Without consistent onboarding quality, the impact of recruitment practices may not be fully realized, thereby reducing the overall explanatory power of the model.

From a theoretical perspective, this study contributes to the human resource management literature by integrating the Resource-Based View (RBV) and Social Exchange Theory (SET) into a unified framework that explains how recruitment practices create organizational value through behavioral mechanisms (Cropanzano & Mitchell 2005). The findings extend prior HRM–performance models by demonstrating that the effects of recruitment practices are not primarily direct, but are largely transmitted through patient-centered care (PCC) as a key mediator. The identification of full mediation in the relationship between procedural justice and lean hospital performance, alongside partial mediation for recruitment transparency and previous work experience, provides a more nuanced understanding of how HR practices

operate in healthcare settings. This study also introduces a novel perspective by conceptualizing recruitment as the starting point of a behavioral–operational value chain, thereby bridging the gap between HR systems and lean performance outcomes. As such, it advances existing literature by empirically validating a mediation-based model in the context of competitive private hospitals.

This study also provides a managerial perspective; the findings suggest that hospital management should move beyond viewing recruitment as a routine administrative process and instead treat it as a strategic tool for shaping service behavior and operational performance. The strong influence of procedural justice ($\beta = 0.472$, $p < 0.001$) and recruitment transparency ($\beta = 0.370$, $p < 0.001$) on patient-centered care highlights the importance of designing recruitment systems that are fair, transparent, and aligned with organizational values.

Moreover, given that patient-centered care significantly drives lean hospital performance ($\beta = 0.353$, $p < 0.001$), managers should ensure that recruitment criteria emphasize not only technical competence but also interpersonal and service-oriented capabilities. The non-significant direct effect of procedural justice on lean performance further implies that management should focus on reinforcing behavioral outcomes, such as patient-centered practices, despite only expecting immediate efficiency gains from HR policies alone. Therefore, hospitals can enhance both service quality and operational efficiency by aligning recruitment strategies with patient-centered care principles, ultimately strengthening their competitive and financial performance.

5 | CONCLUSIONS AND FUTURE WORK

This study shows that strategic recruitment practices contribute to lean hospital performance primarily through behavioral pathways rather than direct effects. Recruitment processes characterized by fairness and transparency play an important role in shaping patient-centered care among nurses, which in turn becomes a key driver of operational efficiency and service quality. The findings indicate that recruitment should not be viewed merely as a mechanism for acquiring talent, but as a strategic process that influences how employees deliver care and create value for patients. In this sense, recruitment acts as the starting point of a broader value chain in which employee behavior links human resource practices with organizational performance outcomes. Overall, the study provides a more nuanced understanding of how recruitment contributes to both service excellence and efficiency in competitive private hospital settings. This study acknowledges several important limitations related to implementation context rather than research design. First, although the study focuses on Type B private hospitals, variations in organizational systems and recruitment practices across hospitals may influence how employees perceive fairness and transparency, potentially affecting the strength of the relationships observed. Second, while respondents were selected based on recent recruitment (≤2 years), differences in onboarding processes, training intensity, and internal HR practices after hiring were not controlled, which may explain why some direct effects, particularly procedural justice on lean performance, were not significant. Third, the measurement of lean hospital performance relies on perceptual assessments by nurses, which may not fully capture objective efficiency outcomes such as cost reduction or process cycle time. These factors suggest that the observed relationships are sensitive to organizational context and implementation consistency.

Future research should focus on capturing post-recruitment HR processes, such as onboarding quality, training systems, and performance management, to better explain how recruitment translates into operational outcomes. Incorporating multi-source data, including managerial assessments and objective performance indicators (e.g., efficiency metrics, financial performance), would strengthen the robustness of findings. Additionally, comparative studies across different hospital types or regions could provide deeper insights into contextual variations. Future studies may also explore moderating variables, such as leadership style or organizational culture, to better understand when and how recruitment practices are most effective in driving patient-centered care and lean performance.

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