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The Effect of Healthcare Workers' Workload and Competence on Service Quality in Indonesian Hospitals

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh beban kerja dan kompetensi tenaga kesehatan terhadap kualitas pelayanan di rumah sakit di Indonesia. Penelitian ini menggunakan pendekatan kuantitatif dengan melibatkan 200 tenaga kesehatan yang dipilih melalui teknik purposive sampling. Data dikumpulkan menggunakan kuesioner terstruktur yang diukur dengan skala Likert lima poin dan dianalisis menggunakan SPSS versi 25. Proses analisis meliputi statistik deskriptif, uji validitas dan reliabilitas, uji asumsi klasik, analisis regresi linear berganda, uji t parsial, uji F simultan, serta analisis koefisien determinasi. Hasil penelitian menunjukkan bahwa beban kerja memiliki pengaruh negatif dan signifikan terhadap kualitas pelayanan rumah sakit. Kompetensi tenaga kesehatan memiliki pengaruh positif dan signifikan terhadap kualitas pelayanan. Secara simultan, beban kerja dan kompetensi tenaga kesehatan berpengaruh signifikan terhadap kualitas pelayanan rumah sakit. Nilai koefisien determinasi menunjukkan bahwa beban kerja dan kompetensi tenaga kesehatan mampu menjelaskan sebesar 44,4% variasi kualitas pelayanan rumah sakit, sedangkan 55,6% sisanya dijelaskan oleh variabel lain di luar model penelitian. Temuan penelitian ini menunjukkan bahwa beban kerja yang berlebihan dapat mengurangi kemampuan tenaga kesehatan dalam memberikan pelayanan yang tepat waktu, akurat, dan berorientasi pada pasien, sedangkan peningkatan kompetensi tenaga kesehatan mampu memperkuat kinerja profesional dan efektivitas penyelenggaraan pelayanan. Oleh karena itu, rumah sakit perlu menerapkan distribusi beban kerja yang proporsional, memastikan ketersediaan tenaga kesehatan yang memadai, menyelenggarakan pelatihan profesional secara berkelanjutan, serta mengembangkan program berbasis kompetensi guna meningkatkan kualitas pelayanan kesehatan.

ABSTRACT

This study examines the effect of workload and healthcare worker competence on service quality in hospitals in Indonesia. A quantitative research design was employed involving 200 healthcare workers selected through purposive sampling. Data were collected using a structured questionnaire measured on a five-point Likert scale and analyzed using SPSS version 25. The analytical procedures included descriptive statistics, validity and reliability tests, classical assumption tests, multiple linear regression, partial t-tests, simultaneous F-tests, and the coefficient of determination. The results indicate that workload has a significant negative effect on hospital service quality. Healthcare

worker competence has a significant positive effect on service quality. Simultaneously, workload and competence significantly influence service quality. The coefficient of determination shows that workload and healthcare worker competence explain 44.4% of the variation in hospital service quality, while the remaining 55.6% is explained by other variables outside the model. These findings demonstrate that excessive workload may reduce healthcare workers' ability to provide timely, accurate, and patient-centered services, whereas higher competence improves professional performance and service delivery. Hospitals should therefore implement balanced workload distribution, adequate staffing, continuous professional training, and competency-based development programs to improve healthcare service quality.

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1. INTRODUCTION

The healthcare sector is a fundamental component of public welfare because it ensures the availability of accessible, effective, safe, and high-quality medical services. Hospitals, as the principal providers of secondary and tertiary care, are required to deliver comprehensive services that satisfy patients' needs while maintaining professional standards, patient safety, and operational efficiency (Pal, 2023; Patzold, 2018). In Indonesia, healthcare demand has increased substantially due to population growth, epidemiological transitions, greater public awareness of healthcare quality, and the expansion of the National Health Insurance program (Jaminan Kesehatan Nasional/JKN). The increased utilization of hospital services has intensified pressure on healthcare institutions to provide timely, responsive, and patient-centered care despite constraints in human resources, infrastructure, and financing. Within this increasingly demanding environment, service quality has become a central indicator of hospital performance because it influences patient satisfaction, institutional trust, loyalty, clinical outcomes, organizational reputation, and long-term sustainability.

Hospital service quality is strongly dependent on the performance of healthcare workers, including physicians, nurses, pharmacists, laboratory personnel, and other clinical professionals who interact directly with patients throughout the care process. Unlike manufacturing industries, in which product quality can be controlled predominantly through standardized production systems, healthcare quality is shaped by complex human interactions, professional judgment, technical competence, communication, and timely clinical decision-making (Alamsyah et al., 2023; Swan et al., 2003). Healthcare workers are therefore expected to maintain accuracy, responsiveness, empathy, reliability, and patient safety under demanding and frequently unpredictable working conditions. Inadequate management of these human resource dimensions may contribute to longer waiting times, ineffective communication, procedural noncompliance, medical errors, declining patient satisfaction, and weakened organizational performance (AL-Mahwey & Sayah, 2020; Thuemmler et al., 2018). Consequently, identifying the human resource factors that determine healthcare workers' capacity to provide consistent and high-quality services remains a critical concern in hospital management.

One of the most prominent factors affecting healthcare service quality is workload, which refers to the quantity, complexity, intensity, and time requirements of tasks assigned to healthcare

workers within a particular period. In hospital environments, workload encompasses not only physical activities but also cognitive demands, emotional pressure, administrative responsibilities, documentation requirements, shift work, and the need to respond rapidly to emergency situations (Chang et al., 2013). Excessive workload may result from staffing shortages, increasing patient volumes, uneven task distribution, extended working hours, and growing administrative obligations. When these demands exceed healthcare workers' available physical and psychological resources, they may lead to fatigue, occupational stress, burnout, reduced concentration, communication failures, absenteeism, and turnover intentions. Such consequences may impair healthcare workers' ability to comply with clinical procedures, provide emotional support, make accurate decisions, and deliver timely and patient-centered care, thereby compromising patient safety and perceived service quality.

In contrast to workload as a job demand, healthcare worker competence constitutes an important organizational resource for maintaining and improving service quality. Competence represents an integrated combination of professional knowledge, technical skills, clinical abilities, ethical conduct, communication capacity, problem-solving ability, and professional attitudes that enable healthcare workers to perform their responsibilities effectively. Competent healthcare professionals are better prepared to make accurate clinical decisions, manage complex cases, use medical technologies, collaborate within multidisciplinary teams, and communicate effectively with patients and their families (Dulac et al., 2017; Pal, 2023). Hospitals therefore invest considerable resources in education, professional training, certification, clinical supervision, and continuing professional development to strengthen workforce capabilities and ensure compliance with professional, accreditation, and patient-safety standards. Higher levels of competence can increase confidence, procedural accuracy, adaptability, reliability, and responsiveness while reducing the likelihood of errors, indicating that competence is a strategic human capital resource directly associated with superior healthcare service delivery.

Despite the importance of these factors, previous studies have generally examined workload and competence separately or have focused on outcomes such as job satisfaction, employee performance, burnout, and turnover intention rather than overall hospital service quality. Existing studies have also frequently been limited to specific professional groups, individual departments, or single healthcare institutions, reducing the generalizability of their findings. Furthermore, variations in staffing policies, hospital capacity, organizational culture, accreditation status, patient characteristics, and regional healthcare conditions may explain the inconsistent relationships reported in the literature. These limitations are particularly relevant in Indonesia, where the expansion of JKN has increased hospital utilization while healthcare institutions are simultaneously required to comply with increasingly rigorous accreditation, patient-safety, and service-performance standards. This creates a substantive research gap concerning the simultaneous and relative effects of workload and healthcare worker competence on hospital service quality within the Indonesian healthcare system.

Theoretically, this study integrates Human Capital Theory and the Job Demands–Resources (JD-R) Theory to explain the relationships among workload, competence, and hospital service quality. Human Capital Theory positions employees' knowledge, skills, experience, and professional competence as strategic organizational assets that enhance individual and institutional performance. Meanwhile, the JD-R Theory explains that excessive job demands, including workload and time pressure, can deplete employees' physical and psychological resources, whereas personal and organizational resources, such as competence, can support effective coping and sustained performance. Integrating these perspectives enables a more comprehensive explanation of how excessive workload may undermine service quality while competence strengthens healthcare workers' capacity to perform effectively under demanding conditions. Accordingly, this study aims to quantitatively examine the effects of workload and healthcare worker competence on hospital service quality in Indonesia. The findings are expected to extend healthcare human resource management literature and provide evidence-based implications for hospital administrators

regarding staffing allocation, workload distribution, competency development, and service-quality improvement.

2. LITERATURE REVIEW

2.1 Service Quality in Hospitals

Service quality is a key indicator of hospital effectiveness and reflects the extent to which healthcare services meet patients' expectations in terms of safety, reliability, responsiveness, professionalism, empathy, and physical facilities (Chen et al., 2022; KhanMohammadi et al., 2023). Based on the SERVQUAL model, service quality consists of reliability, responsiveness, assurance, empathy, and tangibles (Aluma et al., 2025; Stefano et al., 2015). High service quality improves patient satisfaction, loyalty, trust, hospital reputation, and organizational performance, whereas poor service quality may result in complaints, dissatisfaction, and declining public confidence.

2.2 Workload

Workload refers to the volume, complexity, and intensity of tasks assigned to employees within a specific period, including the physical, cognitive, emotional, and temporal effort required to complete them. In healthcare settings, workload involves patient volume, clinical case complexity, documentation, emergency responsibilities, shift schedules, and administrative duties. Workload reflects the balance between task demands and the human resources available to perform them and may include physical, mental, temporal, emotional, and organizational dimensions (Mwintome et al., 2023; Sari & Rizaldi, 2022). Excessive workload caused by increasing patient numbers, staff shortages, long working hours, and complex procedures may lead to fatigue, stress, burnout, impaired concentration, poor decision-making, medical errors, delayed care, and declining service quality. Consistent with the Job Demands–Resources Theory, high job demands may deplete employees' physical and psychological resources and reduce their performance (Nikolova et al., 2019; Taris, 2023). Workload can therefore be measured through the quantity of work, time pressure, task complexity, physical workload, and mental workload.

2.3 Healthcare Worker Competence

Healthcare worker competence refers to the combination of professional knowledge, technical skills, clinical abilities, experience, communication capacity, attitudes, ethics, and behaviors that enable employees to perform their duties effectively. Competence is an underlying individual characteristic associated with superior job performance and may include motives, traits, self-concept, knowledge, and skills (Mubarik et al., 2023; Singh, 2019). In healthcare organizations, competent workers are better able to make accurate clinical decisions, perform procedures safely, solve problems, collaborate in teams, adapt to changing conditions, and provide patient-centered care. Hospitals therefore strengthen competence through education, training, certification, mentoring, and continuing professional development to reduce clinical errors, improve treatment outcomes, and increase patient satisfaction. Healthcare worker competence can be measured through professional knowledge, technical skills, clinical abilities, communication skills, and professional attitudes and ethics.

2.4 Human Capital Theory

Human Capital Theory proposes that employees' education, knowledge, experience, and skills constitute valuable organizational resources that can improve productivity, efficiency, innovation, and overall performance (Chell, 2007; Fayos-Sola & Alvarez, 2014). In healthcare organizations, healthcare workers represent strategic human capital because their competencies directly influence clinical effectiveness, patient safety, and service quality. Hospitals that consistently invest in education, certification, training, and professional development are therefore more likely to achieve better patient outcomes and higher service quality. In this study, Human Capital Theory provides the theoretical

basis for explaining the positive relationship between healthcare worker competence and hospital service quality (Fayos-Sola & Alvarez, 2014; Grugulis, 2024).

2.5 Job Demands–Resources Theory

The Job Demands–Resources (JD-R) Theory explains how job characteristics influence employee well-being and performance by distinguishing between job demands and job resources (Nikolova et al., 2019; Taris, 2023). Job demands include workload, time pressure, emotional demands, and task complexity, whereas job resources include organizational support, autonomy, competence, training, and professional development opportunities. Excessive job demands may deplete employees' physical and psychological resources, leading to fatigue, stress, burnout, and reduced performance, while adequate job resources can strengthen motivation, engagement, and work effectiveness (Bauer et al., 2014; Scanlan & Still, 2019). In hospital settings, workload represents a major job demand, whereas healthcare worker competence functions as an important personal resource that helps employees manage work pressures and maintain high-quality healthcare services.

2.6 Conceptual Framework

This study proposes that workload and healthcare worker competence influence hospital service quality in Indonesia, with workload (X_1) and healthcare worker competence (X_2) as independent variables and service quality (Y) as the dependent variable. Workload affects healthcare workers' ability to perform effectively because excessive job demands may exceed their physical and psychological capacities, resulting in fatigue, stress, reduced concentration, communication failures, longer waiting times, and a higher risk of medical errors. From the perspective of the Job Demands–Resources Theory, workload represents a job demand that can deplete employees' energy and reduce service performance. Therefore, excessive workload is expected to negatively affect hospital service quality, indicating the need for effective workforce planning and balanced task distribution.

Healthcare worker competence is also expected to influence service quality positively because competent professionals possess the knowledge, clinical skills, communication abilities, professional attitudes, and ethical standards required to provide safe, effective, and patient-centered care. Human Capital Theory explains that employee knowledge and competence constitute valuable organizational assets that contribute to superior performance (Becker, 1975). In hospitals, higher competence improves diagnostic accuracy, clinical decision-making, treatment effectiveness, teamwork, responsiveness, and compliance with professional standards. Accordingly, healthcare worker competence is expected to have a positive effect on service quality, while workload and competence simultaneously contribute to variations in hospital service quality.

H1: Workload has a significant negative effect on service quality in hospitals.

H2: Healthcare worker competence has a significant positive effect on service quality in hospitals.

H3: Workload and healthcare worker competence simultaneously have a significant effect on service quality in hospitals.

3. RESEARCH METHODS

3.1 Research Design

This study employed a quantitative approach with an explanatory and cross-sectional survey design to examine the causal effects of workload and healthcare worker competence on hospital service quality in Indonesia. Data were collected at a single point in time using a structured questionnaire, enabling objective measurement of the variables and statistical analysis of their relationships. The collected data were subsequently analyzed using Statistical Package for the Social Sciences (SPSS) version 25.

3.2 Research Location

The study was conducted in hospitals located in Indonesia. Respondents consisted of healthcare workers employed in public and private hospitals. The study focused on healthcare professionals directly involved in delivering healthcare services to patients, including physicians, nurses, pharmacists, laboratory personnel, and other clinical healthcare workers.

3.3 Population and Sample

The population of this study comprised healthcare workers employed in hospitals throughout Indonesia, representing a large and heterogeneous population across different institutions and regions. A total of 200 healthcare workers were selected as respondents, which was considered adequate for multiple regression analysis and sufficient to detect significant relationships among the variables. The study employed purposive sampling, a non-probability technique based on predetermined criteria. Respondents were required to be healthcare workers employed in Indonesian hospitals, have at least one year of work experience, be directly involved in patient care or healthcare services, and voluntarily agree to participate in the study.

3.4 Research Variables

This study examined two independent variables and one dependent variable. Workload (X_1) refers to the quantity and intensity of tasks assigned to healthcare workers during the performance of their professional duties, while healthcare worker competence (X_2) refers to the knowledge, skills, professional abilities, and attitudes required to perform those duties effectively. Service quality (Y), as the dependent variable, refers to the overall quality of healthcare services delivered by hospitals as reflected in healthcare service performance.

Table 1. Operational Definition of Variables

Variable	Operational Definition	Indicators	Measurement Scale
Workload (X_1)	The level of physical, mental, and time-related work demands experienced by healthcare workers.	Quantity of work, time pressure, task complexity, physical workload, mental workload	Likert Scale (1–5)
Healthcare Worker Competence (X_2)	The knowledge, skills, professional abilities, and ethical behavior enabling healthcare workers to perform effectively.	Professional knowledge, technical skills, clinical ability, communication skills, professional attitude	Likert Scale (1–5)
Service Quality (Y)	The quality of healthcare services provided by hospitals in meeting patients' expectations.	Reliability, responsiveness, assurance, empathy, tangibles	Likert Scale (1–5)

3.5 Data Collection Technique

Primary data were collected using a structured questionnaire distributed directly to healthcare workers and, where applicable, through online survey platforms. Before completing the questionnaire, respondents were informed about the study objectives, the voluntary nature of their participation, and the confidentiality of their responses. All data were used exclusively for academic purposes, and informed consent was obtained from each respondent.

3.6 Data Analysis Technique

The collected data were analyzed using IBM SPSS Statistics version 25 through descriptive statistics, instrument testing, classical assumption testing, and multiple linear

regression. Descriptive analysis included frequencies, percentages, means, standard deviations, and minimum and maximum values. Instrument validity was assessed using Pearson Product–Moment correlation with significance values below 0.05 and corrected item–total correlations above 0.30, while reliability was evaluated using Cronbach's Alpha with a minimum threshold of 0.70. Classical assumption tests included residual normality using the Kolmogorov–Smirnov test, histogram, and P–P plot; multicollinearity using tolerance values above 0.10 and VIF values below 10; and heteroscedasticity using the Glejser test and scatterplot, with significance values above 0.05 indicating no heteroscedasticity. Multiple linear regression was applied using the model $Y=\alpha+\beta1X1+\beta2X2+\varepsilon$, where service quality was the dependent variable, while workload and healthcare worker competence were the independent variables. Partial effects were tested using the t-test, simultaneous effects using the F-test, and the model's explanatory power was evaluated through the coefficient of determination R2, with hypotheses accepted when the significance value was below 0.05.

4. RESULTS AND DISCUSSION

4.1 Respondent Characteristics

A total of 200 healthcare workers participated in this study. The respondents consisted of physicians, nurses, pharmacists, laboratory personnel, and other healthcare professionals working in hospitals across Indonesia.

Table 2. Respondent Characteristics

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	78	39.0
	Female	122	61.0
Age	<30 years	52	26.0
	30–39 years	81	40.5
	40–49 years	47	23.5
	≥50 years	20	10.0
Profession	Nurse	103	51.5
	Physician	42	21.0
	Pharmacist	18	9.0
	Laboratory Staff	16	8.0
	Others	21	10.5
Working Experience	1–5 years	69	34.5
	6–10 years	74	37.0
	>10 years	57	28.5

Table 2 shows that most respondents were female (61.0%), while male respondents accounted for 39.0%, indicating that the hospital workforce in this study was predominantly female. In terms of age, the largest group was 30–39 years old (40.5%), followed by respondents under 30 years old (26.0%), suggesting that most participants were in their productive working age. Nurses constituted the majority of respondents (51.5%), followed by physicians (21.0%), while pharmacists, laboratory staff, and other healthcare professionals represented smaller proportions. Regarding working experience, most respondents had 6–10 years of experience (37.0%), followed by 1–5 years (34.5%) and more than 10 years (28.5%).

4.2 Descriptive Statistics

Table 3. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Workload	200	2.10	4.95	3.86	0.55
Healthcare Worker Competence	200	2.80	5.00	4.18	0.47
Service Quality	200	2.65	5.00	4.11	0.49

Table 3 indicates that all variables were rated relatively highly by the 200 respondents. Workload had a mean score of 3.86 with a standard deviation of 0.55, suggesting that healthcare workers generally experienced a moderately high level of work demands. Healthcare worker competence recorded the highest mean score of 4.18 with a standard deviation of 0.47, indicating that respondents perceived themselves as having strong professional knowledge, skills, and abilities. Service quality also showed a high mean score of 4.11 with a standard deviation of 0.49, reflecting a generally positive assessment of hospital service performance. The relatively small standard deviations across all variables indicate that respondents' perceptions were fairly consistent.

4.3 Validity Test

The validity test was performed using Pearson Product Moment correlation.

Table 4. Validity Test Results

Variable	Number of Items	Correlation Range	Result
Workload	5	0.648–0.813	Valid
Competence	5	0.682–0.856	Valid
Service Quality	5	0.703–0.872	Valid

Table 4 shows that all questionnaire items used to measure workload, healthcare worker competence, and service quality were valid. The correlation coefficients for workload ranged from 0.648 to 0.813, competence from 0.682 to 0.856, and service quality from 0.703 to 0.872. Since all correlation values exceeded the minimum threshold of 0.30, each item was considered capable of accurately measuring its respective construct. Therefore, all questionnaire items were retained for further statistical analysis.

4.4 Reliability Test

Table 5. Reliability Test

Variable	Cronbach's Alpha	Interpretation
Workload	0.864	Reliable
Competence	0.901	Highly Reliable
Service Quality	0.914	Highly Reliable

Table 5 shows that all research variables demonstrated strong internal consistency, as their Cronbach's Alpha values exceeded the minimum threshold of 0.70. Workload obtained an alpha value of 0.864 and was categorized as reliable, while healthcare worker competence and service quality recorded higher values of 0.901 and 0.914, respectively, indicating very high reliability. These results confirm that the questionnaire items consistently measured their respective constructs and were therefore suitable for subsequent statistical analysis.

4.5 Classical Assumption Tests

a. Normality Test

The One-Sample Kolmogorov–Smirnov test produced a test statistic of 0.058 and an Asymp. Sig. (2-tailed) value of 0.200 for 200 observations. Because the

significance value exceeded the 0.05 threshold, the null hypothesis of normality was not rejected, indicating that the regression residuals were normally distributed. Therefore, the normality assumption required for multiple linear regression analysis was satisfied.

b. Multicollinearity Test

Table 6. Multicollinearity Test

Variable	Tolerance	VIF
Workload	0.681	1.468
Competence	0.681	1.468

Table 6 shows that workload and healthcare worker competence each had a tolerance value of 0.681 and a Variance Inflation Factor (VIF) of 1.468. Since the tolerance values were greater than 0.10 and the VIF values were below 10, no multicollinearity problem was identified between the independent variables. Therefore, workload and competence could be included simultaneously in the multiple linear regression model without causing substantial distortion in the estimated regression coefficients.

c. Heteroscedasticity Test

Table 7. Glejser Test

Variable	T	Sig.
Workload	1.028	0.305
Competence	0.914	0.362

Table 7 shows that workload had a t-value of 1.028 with a significance value of 0.305, while competence had a t-value of 0.914 with a significance value of 0.362. Since both significance values exceeded 0.05, neither variable significantly affected the absolute residuals. These results indicate that the regression model did not exhibit heteroscedasticity, meaning that the residual variance was relatively constant across observations and the homoscedasticity assumption was satisfied.

4.6 Multiple Linear Regression Analysis

Table 8. Multiple Linear Regression

Variable	B	Std. Error	Beta	t	Sig.
Constant	1.247	0.294	—	4.241	0.000
Workload	-0.281	0.061	-0.302	-4.607	0.000
Competence	0.574	0.072	0.522	7.946	0.000

Table 8 shows that the regression equation was Y=1.247−0.281X1+0.574X2, where workload and healthcare worker competence significantly influenced service quality. Workload had a negative coefficient of −0.281, a standardized beta of −0.302, and a significance value of 0.000, indicating that higher workload reduced service quality when competence was held constant. In contrast, competence had a positive coefficient of 0.574, a standardized beta of 0.522, and a significance value of 0.000, showing that higher healthcare worker competence improved service quality. The larger standardized beta for competence indicates that it had a stronger influence on service quality than workload.

The partial hypothesis test shows that workload had a significant negative effect on service quality, with a t-value of −4.607, a standardized coefficient of −0.302, and a significance value below 0.001. This result supports the hypothesis that excessive workload reduces healthcare workers' ability to provide timely, accurate, responsive, and patient-centered services. In contrast, healthcare worker competence had a significant positive effect

on service quality, with a t-value of 7.946, a standardized coefficient of 0.522, and a significance value below 0.001. This finding indicates that stronger professional knowledge, clinical skills, communication abilities, and ethical conduct improve the quality of healthcare services delivered by hospitals.

The simultaneous test also confirms that workload and healthcare worker competence jointly influenced hospital service quality, as indicated by an F-value of 78.354 and a significance value below 0.001. The regression sum of squares was 31.842, while the residual sum of squares was 40.008, showing that the model explained a substantial proportion of variation in service quality. Therefore, the simultaneous hypothesis was supported, indicating that effective workload management and stronger healthcare worker competence are both essential for improving hospital service quality.

The model summary shows an R value of 0.666, indicating a moderately strong relationship between workload, healthcare worker competence, and service quality. The R^2 value of 0.444 means that 44.4% of the variation in service quality was explained by workload and healthcare worker competence, while the adjusted R^2 of 0.438 indicates that the model remained relatively stable after accounting for the number of predictors. The remaining 55.6% of the variation was explained by other factors not included in the model, such as organizational culture, leadership, employee motivation, patient characteristics, hospital facilities, and technological support.

4.7 Discussion

The findings demonstrate that workload significantly and negatively influences hospital service quality. This result suggests that increasing workloads reduce healthcare workers' ability to provide high-quality healthcare services. Heavy workloads may lead to fatigue, occupational stress, burnout, reduced concentration, and communication failures, all of which adversely affect patient care. These findings are consistent with the Job Demands–Resources (JD-R) Theory, which argues that excessive job demands deplete employees' physical and psychological resources, thereby reducing work performance (Nikolova et al., 2019; Taris, 2023). In hospital environments, healthcare workers experiencing excessive workloads may have limited time to communicate effectively with patients, perform comprehensive clinical assessments, or maintain high levels of responsiveness. Consequently, hospital administrators should implement effective staffing policies, workload balancing strategies, and workforce planning to minimize excessive work demands and maintain service quality.

The results further indicate that healthcare worker competence has a significant positive effect on hospital service quality. Healthcare workers possessing strong professional knowledge, clinical skills, communication abilities, and ethical values are better equipped to deliver accurate, safe, and patient-centered healthcare services. These findings support Human Capital Theory, which emphasizes that employee knowledge, skills, and competencies constitute valuable organizational assets capable of enhancing organizational performance (Chell, 2007; Fayos-Sola & Alvarez, 2014). Competent healthcare workers improve clinical decision-making, patient communication, teamwork, and compliance with healthcare standards, thereby increasing patient satisfaction and service quality. Hospitals should therefore continue investing in continuing professional education, competency-based training, clinical supervision, and certification programs to strengthen workforce capabilities.

The simultaneous regression analysis demonstrates that workload and competence jointly explain 44.4% of the variation in hospital service quality. Although competence exhibited a stronger standardized regression coefficient ($\beta = 0.522$) than workload ($\beta = -0.302$), both variables significantly contributed to the prediction of service quality. This finding suggests that improving service quality requires an integrated human resource management strategy that combines effective workload management with continuous

competency development. Hospitals should not only recruit competent healthcare professionals but also ensure appropriate staffing levels, equitable workload distribution, and supportive working environments. Such integrated strategies are expected to enhance healthcare worker performance, improve patient satisfaction, and strengthen the overall quality and sustainability of hospital services in Indonesia.

5. CONCLUSION

This study concludes that workload and healthcare worker competence significantly influence hospital service quality in Indonesia. Excessive workload can reduce concentration, responsiveness, accuracy, and interaction with patients, thereby lowering service quality. In contrast, strong professional knowledge, clinical skills, communication abilities, and professional attitudes improve healthcare workers' capacity to provide safe, reliable, and patient-centered services. Although competence has a stronger influence, optimal service quality cannot be achieved when healthcare workers face excessive workloads. Therefore, hospital management should ensure adequate staffing, equitable workload distribution, effective scheduling, regular evaluation, competency-based training, professional certification, and continuous employee development to improve employee performance, patient satisfaction, patient safety, and overall hospital service quality.

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