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LITERATURE REVIEW
DETERMINANTS OF NURSE PERFORMANCE: THE ROLE OF WORK MOTIVATION, COMPETENCE, AND JOB SATISFACTION

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ABSTRACT
Nurse performance affects quality, safety, and outcomes. Work motivation, competence, and job satisfaction are determinants, but evidence remains fragmented. To synthesize evidence on these determinants of nurse performance and identify gaps. A systematic review followed PRISMA 2020. PubMed, ScienceDirect, and Google Scholar were searched for studies published during 2021–2025. Using PICOS, studies involved nurses and examined determinants and performance. Quality was assessed using the JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies, with risk of bias assessed across four domains. Of 675 records, 9 studies met inclusion criteria. All were cross-sectional and conducted in Indonesian hospitals. Motivation was examined in nine studies and consistently associated with performance. Competence and job satisfaction were each examined in five studies, showing direct and indirect associations with performance. Six studies were high quality and three moderate quality. Biases included self-reported performance and inadequate confounding control. Motivation, competence, and job satisfaction are interrelated determinants, with motivation the most consistent driver. Evidence is limited by cross-sectional designs, single-country context, and subjective outcomes. Longitudinal, multi-country, and intervention studies using objective performance indicators are needed.

Keywords: competence; job satisfaction nurse performance; work motivation

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INTRODUCTION

Nurses form the largest professional group in the health workforce and provide most direct patient care in hospitals. The World Health Organization (2020) estimates that nurses account for more than half of all health professionals worldwide and considers them central to achieving universal health coverage. Because nurses are present at the bedside around the clock, their performance, understood as the quality, accuracy, timeliness, and professionalism with which they carry out nursing care, strongly shapes patient safety, patient satisfaction, and hospital efficiency. Large-scale evidence has shown that nursing workforce characteristics are linked to patient mortality and adverse events (Syabanasyah & Solehudin, 2023) . Understanding what drives nurse performance is therefore not only a human resource management concern but also a patient safety and health system priority. In Indonesia and other low- and middle-income countries, where hospitals face workforce shortages, high.

Organizational behavior theory offers several explanations for variation in employee performance. The Ability–Motivation–Opportunity (AMO) framework holds that performance depends on employees having the ability to perform, the motivation to perform, and the opportunity to perform (Sudarmo et al., 2025). In nursing, ability corresponds largely to professional competence, meaning the integrated knowledge, skills, and attitudes that underpin effective care (AlRatrout et al., 2025). Motivation has been explained through content theories such as Herzberg's two-factor theory, which separates intrinsic motivators from extrinsic hygiene factors (Gultom et al., 2025), and through

process theories such as Vroom's (1964) expectancy theory and self-determination theory (Ryan & Deci, 2000). Job satisfaction, defined as a pleasurable emotional state resulting from the appraisal of one's job (Al-Khaledi, 2022) , has long been proposed as a correlate of performance, although the direction and strength of that relationship remain debated (Soesanto et al., 2022) . The Porter and Lawler (1968) model further suggests that satisfaction may follow from performance rather than precede it, which adds theoretical complexity (Alshaibani et al., 2024).

Despite a growing body of empirical work on nurse performance, particularly in Indonesia, the findings are scattered across local and international journals and use varied analytical models. Some studies treat job satisfaction as a mediator between competence or motivation and performance, while others position motivation as the mediator between competence or satisfaction and performance. These competing models make it difficult for hospital managers and nurse leaders to identify which levers are most effective for improving performance, and for researchers to judge what is already known. This review aimed to (1) synthesize empirical evidence on the influence of work motivation, competence, and job satisfaction on nurse performance; (2) describe the direct and indirect pathways reported among these variables; (3) appraise the methodological quality and risk of bias of the available studies; and (4) identify research gaps to guide future studies and management practice.

METHOD

Review Design

This study was a systematic literature review reported in accordance with the PRISMA 2020 statement (Page et al., 2021).

Research Question (PICOS)

The research question was developed with the PICOS framework (Population, Intervention/Exposure, Comparison, Outcome, Study design), which is well suited to reviews of observational evidence on determinants of health workforce outcomes (Jones et al., 2022) . The review question was: Among nurses working in hospitals, how do work motivation, competence, and job satisfaction influence nurse performance? Table 1 presents the elements of the PICOS framework.

Table 1.
PICOS framework of the review question

Element	Description	Operationalization in this review
P (Population)	Nurses working in hospitals	Registered nurses and practical nurses in public or private hospitals, including general, specialty, and psychiatric hospitals, in inpatient or other clinical units
I/E (Intervention/ Exposure)	Individual determinants of performance	Work motivation (intrinsic and extrinsic), professional or clinical competence, and job satisfaction, examined singly or in combination
C (Comparison)	Not applicable or level-based comparison	No formal comparator; comparisons were between nurses with different levels of motivation, competence, or job satisfaction
O (Outcome)	Nurse performance	Nurse performance or work performance measured with a standardized instrument, supervisor rating, or self-report scale, including performance of nursing care or the nursing process
S (Study design)	Quantitative observational studies	Cross-sectional, correlational, survey, path analysis, regression, or structural equation modeling studies

Literature Search Strategy

A systematic search was carried out in three electronic sources: PubMed, ScienceDirect, and Google Scholar. PubMed and ScienceDirect were chosen for their coverage of international nursing, health services, and management literature. Google Scholar was included to capture national journals and Indonesian-language publications that are often not indexed in major bibliographic databases; its value for locating such literature in evidence reviews is well documented (Haddaway et al., 2015). The search covered articles published from January 2021 to December 2026.

Search strings combined keywords and synonyms for the population, exposures, and outcome using the Boolean operators AND and OR. Searches were run in English and in Indonesian. Table 2 summarizes the search strings used in each database and the number of records retrieved. All retrieved records were exported to a reference manager, where duplicates were identified and removed before screening. Reference lists of included studies were also checked by hand for additional relevant articles.

Table 2.
Search strategy by database

Database	Search string	Filters applied	Records (n)
PubMed	("nurse" OR "nurses" OR "nursing staff") AND ("work motivation" OR "motivation") AND ("competence" OR "competency" OR "job satisfaction") AND ("performance" OR "work performance" OR "job performance")	2021–2026; English; full text	40
ScienceDirect	("nurse performance" OR "nursing performance") AND ("work motivation" OR "competence" OR "job satisfaction") AND ("hospital")	2021–2026; research articles	34
Google Scholar	("kinerja perawat" OR "nurse performance") AND ("motivasi kerja" OR "work motivation") AND ("kompetensi" OR "competence" OR "kepuasan kerja" OR "job satisfaction") AND ("rumah sakit" OR "hospital")	2021–2026; English and Indonesian	601
Total			675

Eligibility Criteria

Eligibility criteria were set in advance according to the PICOS framework. Table 3 lists the inclusion and exclusion criteria.

Table 3.
Inclusion and exclusion criteria

Criterion	Inclusion	Exclusion
Population	Nurses working in hospitals	Populations not involving nurses (e.g., physicians, midwives only, administrative staff, or mixed samples in which nurse data could not be separated)
Exposure	Examined work motivation, competence, and/or job satisfaction as independent, mediating, or intervening variables	Did not examine any of the three variables of interest
Outcome	Measured nurse performance as the dependent variable	Outcome other than nurse performance (e.g., turnover intention, burnout, or patient satisfaction only)
Study design	Quantitative observational studies (cross-sectional, correlational, survey, path analysis, SEM, regression)	Qualitative studies, literature reviews, editorials, opinion papers, conference abstracts, theses, and studies with inappropriate designs
Publication	Peer-reviewed journal articles published 2021–2026	Articles published before 2021; non-peer-reviewed sources
Language	English or Indonesian	Other languages
Availability	Full text accessible	Full text unavailable

Study Selection Process (PRISMA 2020)

Study selection followed the PRISMA 2020 flow (Figure 1). The search identified 675 records: 40 from PubMed, 34 from ScienceDirect, and 601 from Google Scholar. After 146 duplicates were removed, 529 records remained for title and abstract screening. At this stage, 347 records were excluded because their titles or abstracts clearly did not match the review topic.

Full-text reports were then sought for retrieval for 202 records, of which 103 could not be retrieved. The remaining 99 full-text articles were assessed for eligibility. Of these, 90 were excluded for the following reasons: the article was not aligned with the research variables (n = 20); the population did not involve nurses (n = 46); the outcome did not measure nurse performance (n = 10); the full

text was unavailable (n = 6); or the study design was inappropriate (n = 8). A total of nine studies met all eligibility criteria and were included in the review.

Study Selection Process Following PRISMA 2020

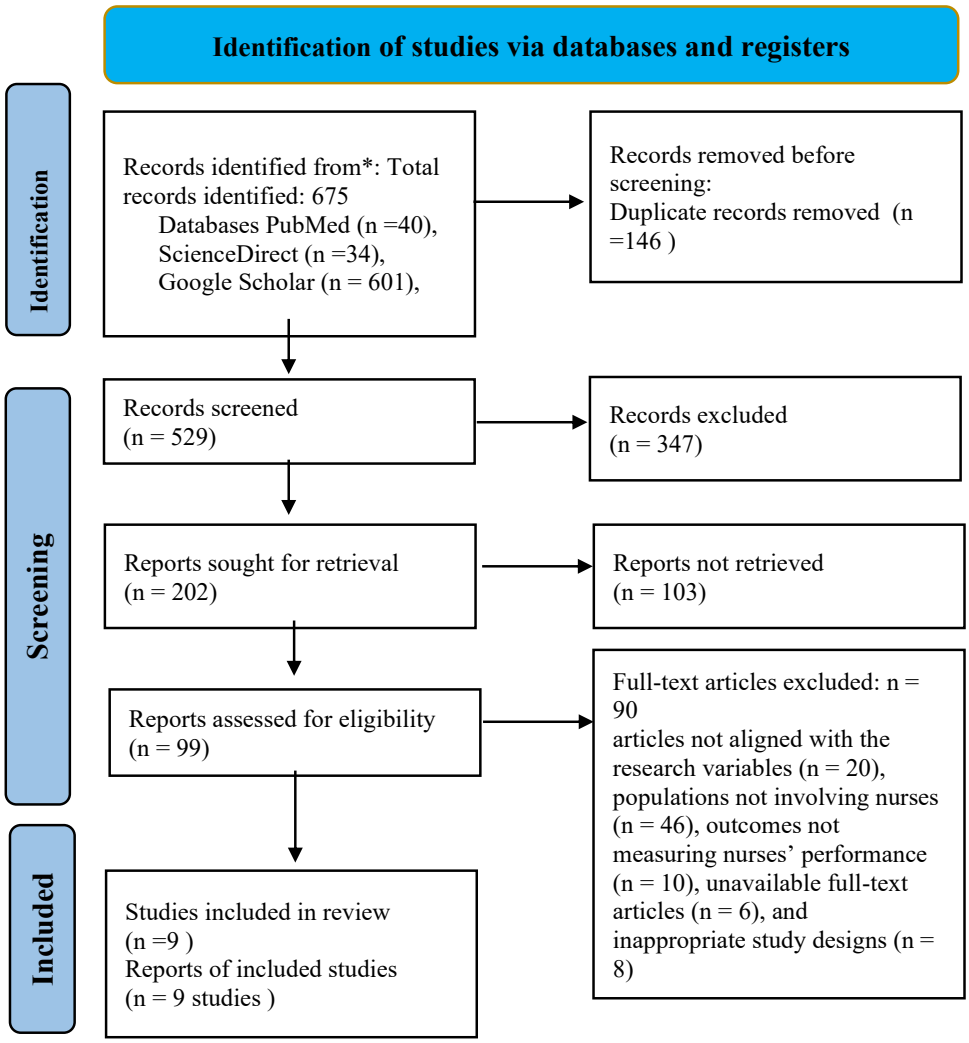

Figure 1. PRISMA 2020 flow diagram of the study selection process

Screening and eligibility assessment were carried out independently by two reviewers. Disagreements were resolved through discussion and, when needed, consultation with a third reviewer. Data were extracted with a standardized extraction form covering the article title, author(s) and year, objective, method, sample, factors examined, main findings, and outcome.

Quality Appraisal Using the JBI Critical Appraisal Tool

Because all included studies used cross-sectional designs, methodological quality was appraised with the JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies (Moola et al., 2020). Each item was rated "Yes" (Y), "No" (N), "Unclear" (U), or "Not applicable" (NA). Only "Yes" responses scored one point. A total score was calculated as the percentage of "Yes" responses. Studies scoring 70% or higher were classified as high quality, 50–69% as moderate quality, and below 50% as low quality. No study was excluded on the basis of quality alone; quality ratings were instead used to weigh the strength of evidence in the synthesis. Table 4 presents the results.

Table 4.
Methodological quality of included studies (JBI Checklist for Analytical Cross-Sectional Studies)

No	Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Score	%	Quality
1	Chindy et al. (2021)	Y	Y	Y	Y	N	N	Y	Y	6/8	75.0	High
2	Prabowo & Herawati (2023)	Y	Y	Y	Y	N	N	Y	Y	6/8	75.0	High
3	Aulia et al. (2024)	U	Y	Y	Y	N	N	Y	Y	5/8	62.5	Moderate
4	Lase et al. (2025)	Y	Y	Y	Y	U	N	Y	Y	6/8	75.0	High
5	Rosyita et al. (2021)	U	Y	Y	Y	N	N	Y	U	4/8	50.0	Moderate
6	Sintari & Subhaktiyasa (2024)	Y	Y	Y	Y	N	N	Y	Y	6/8	75.0	High
7	Pramudita & Mayasari (2025)	Y	Y	Y	Y	N	N	Y	Y	6/8	75.0	High
8	Puspita et al. (2022)	U	U	Y	Y	Y	U	Y	Y	5/8	62.5	Moderate
9	Elisabhet et al. (2025)	Y	Y	Y	Y	N	N	Y	Y	6/8	75.0	High

Note. Y = Yes; N = No; U = Unclear; NA = Not applicable. High quality ≥ 70%; moderate quality 50–69%; low quality < 50%.

Risk of Bias Assessment

In addition to overall quality, risk of bias was assessed across four domains relevant to cross-sectional determinant studies: (1) selection bias, covering sampling method, sample size, and response rate; (2) measurement bias, covering the validity and reliability of instruments and the use of self-reported performance, including the potential for common method bias when all variables come from the same respondent at the same time; (3) confounding bias, covering whether demographic and organizational confounders such as age, tenure, education, workload, and unit type were identified and controlled; and (4) analysis and reporting bias, covering the suitability of statistical models and the completeness of reported results. Each domain was rated low, moderate, or high risk, and an overall judgment was derived from the domain ratings and the JBI score. Results are shown in Table 5.

Table 5.
Risk of bias assessment of included studies

No	Study	Selection bias	Measurement bias	Confounding bias	Analysis/ reporting bias	Overall risk of bias
1	Chindy et al. (2021)	Low	Moderate	High	Low	Moderate
2	Prabowo & Herawati (2023)	Moderate	Moderate	High	Low	Moderate
3	Aulia et al. (2024)	Moderate	Moderate	High	Low	Moderate
4	Lase et al. (2025)	Low	Moderate	Moderate	Low	Low–Moderate
5	Rosyita et al. (2021)	Moderate	Moderate	High	Moderate	Moderate–High
6	Sintari & Subhaktiyasa (2024)	Moderate	Moderate	High	Low	Moderate
7	Pramudita & Mayasari (2025)	Moderate	Moderate	High	Low	Moderate
8	Puspita et al. (2022)	Moderate	Moderate	Moderate	Low	Moderate
9	Elisabhet et al. (2025)	Low	Moderate	High	Moderate	Moderate

RESULT

Characteristics of Included Studies

Nine studies published between 2021 and 2026were included (Table 6). Two were published in 2021, one in 2022, one in 2023, two in 2024, and three in 2025. All nine were conducted in Indonesia, in hospitals located in Riau, East Java (Sidoarjo), South Sulawesi (Takalar), West Java (Bogor), and Bali (Denpasar), as well as in unspecified hospital settings. Settings included a psychiatric hospital, regional public hospitals (RSUD), and private hospitals. All studies used quantitative cross-sectional designs. Analytical approaches included path analysis (n = 4), partial least squares structural equation modeling (PLS-SEM) (n = 1), multiple linear regression (n = 1), correlational analysis (n = 2), and a quantitative survey with unspecified analysis (n = 1). Six studies reported their sample size, which ranged from 61 to 175 nurses, for a combined total of 640 nurses. Three studies (Aulia et al., 2024; Puspita et al., 2022; Rosyita et al., 2021) did not state their sample size in the extracted data.

Table 6.
Characteristics of included studies

No	Author (Year)	Setting	Design / Analysis	Sample	Variables examined	Key findings
1	Amelia Chindy et al. (2021)	Tampan Psychiatric Hospital, Riau Province	Quantitative; path analysis	104 nurses	Competence, work motivation, job satisfaction, performance	Competence and motivation significantly affected job satisfaction and performance; job satisfaction mediated these relationships
2	Prabowo & Herawati (2023)	Private hospitals, Sidoarjo	Cross-sectional; PLS-SEM	109 nurses	Work motivation, job satisfaction, performance	Job satisfaction affected motivation and performance; motivation affected performance
3	Widya Aulia et al. (2024)	Haji Padjonga Daeng Ngalle Regional Hospital	Cross-sectional; path analysis	Not reported	Competence, job satisfaction, motivation, performance	Competence and satisfaction affected motivation and performance; motivation linked them to performance
4	Lase et al. (2025)	Hospital nurses	Quantitative; path analysis	175 nurses	Competence, motivation, performance, reward	Competence and motivation significantly affected performance
5	Rosyita et al. (2021)	Bougenvil and Seruni inpatient wards, Cibinong Regional Hospital, Bogor	Quantitative survey	Not reported	Work motivation, professional competence, performance	Motivation and professional competence were associated with higher performance
6	Sintari & Subhaktiyasa (2024)	Hospital X, Denpasar	Cross-sectional correlational	61 nurses	Job satisfaction, motivation, performance	Job satisfaction and motivation were associated with performance
7	Pramudita & Mayasari (2025)	Hospital	Quantitative; multiple linear regression	77 nurses	Work motivation, job satisfaction, performance	Motivation and satisfaction positively affected performance
8	Puspita et al. (2022)	Hospital nurses	Quantitative; path analysis	Not reported	Transformational leadership, competence, motivation, performance	Competence affected motivation; motivation affected performance
9	Elisabhet et al. (2025)	Hospital nurses	Descriptive correlational; cross-sectional	114 nurses	Work motivation, performance	Level of work motivation was associated with nurse performance

The distribution of determinants across studies is summarized in Table 7. Work motivation was examined in all nine studies, competence in five, and job satisfaction in five. Four studies tested indirect (mediating) pathways.

Table 7.
Mapping of determinants examined in the included studies

No	Study	Work motivation	Competence	Job satisfaction	Mediation tested	Mediating variable
1	Chindy et al. (2021)	✓	✓	✓	Yes	Job satisfaction
2	Prabowo & Herawati (2023)	✓	–	✓	Yes	Work motivation
3	Aulia et al. (2024)	✓	✓	✓	Yes	Work motivation
4	Lase et al. (2025)	✓	✓	–	No*	–
5	Rosyita et al. (2021)	✓	✓	–	No	–
6	Sintari & Subhaktiyasa (2024)	✓	–	✓	No	–
7	Pramudita & Mayasari (2025)	✓	–	✓	No	–
8	Puspita et al. (2022)	✓	✓	–	Yes	Work motivation
9	Elisabhet et al. (2025)	✓	–	–	No	–
	Total	9	5	5	4	

Methodological Quality and Risk of Bias

Six of the nine studies (66.7%) were rated high quality, with JBI scores of 75%, and three (33.3%) were rated moderate quality, with scores between 50% and 62.5%. No study was rated low quality. All studies performed well on items about the measurement of exposure (Q3), the use of standard criteria (Q4), and outcome measurement (Q7), usually through questionnaires that had been tested for validity and reliability. The weakest items were the identification of confounding factors (Q5) and strategies to deal with them (Q6): only Puspita et al. (2022) explicitly included an additional organizational factor, transformational leadership, in its model, and none of the studies reported statistical adjustment for demographic or organizational confounders. For risk of bias, measurement bias was rated moderate across all studies because nurse performance was mostly measured by self-report at the same time as the predictor variables, which increases the risk of common method bias. Confounding bias was rated high in seven studies. Overall, one study was judged low to moderate risk of bias, seven moderate risk, and one moderate to high risk.

Thematic Synthesis

Three main themes, and one cross-cutting theme on pathways among the determinants, emerged from the synthesis.

Work Motivation as a Consistent and Proximal Determinant of Nurse Performance

Work motivation was the only variable examined in all nine studies, and every study reported a significant positive relationship between motivation and nurse performance. In studies with multivariate models, motivation retained a significant direct effect on performance even after competence or job satisfaction was entered (Chindy et al., 2021; Lase et al., 2025; Prabowo & Herawati, 2023; Pramudita & Mayasari, 2025). Elisabhet et al. (2025), in a sample of 114 nurses, found that the level of work motivation was associated with performance and described motivation as a key determinant of nursing service quality. Rosyita et al. (2021) similarly showed that motivation, together with professional competence, was linked to better performance among inpatient ward nurses. The consistency of this finding across different regions, hospital types, and analytical techniques makes work motivation the most robust determinant identified in this review.

Competence as the Foundation of Nurse Performance, Operating Directly and Through Motivation

Five studies examined competence, and all reported a positive association with performance. Lase et al. (2025), which had the largest sample (175 nurses) and the lowest overall risk of bias, found that competence significantly affected performance, and that performance in turn affected rewards. Rosyita et al. (2021) emphasized professional and clinical competence as a primary factor in inpatient ward performance. Three studies showed that competence also works indirectly. Puspita et al. (2022) found that competence increased work motivation, which then improved performance. Aulia et al. (2024) reported a similar pathway, with motivation linking competence to performance. Chindy et al. (2021) found that competence improved job satisfaction, which in turn raised performance. Taken together, these studies suggest that competence is a foundational capability that not only enables good performance directly but also strengthens nurses' motivation and satisfaction, possibly through greater self-efficacy and a sense of professional mastery.

Job Satisfaction as a Direct Determinant and an Intervening Variable

Five studies examined job satisfaction, and all found it to be positively associated with nurse performance. Sintari and Subhaktiyasa (2024) found that both job satisfaction and motivation were associated with performance among 61 nurses in Denpasar and concluded that raising satisfaction could improve the quality of nursing work. Pramudita and Mayasari (2025) reported positive effects of both satisfaction and motivation on performance and attributed nurse performance mainly to internal psychological factors. The role of job satisfaction within the causal chain varied across studies. Chindy et al. (2021) modeled satisfaction as an intervening variable between competence or

motivation and performance and confirmed its mediating role. In contrast, Prabowo and Herawati (2023) found that satisfaction affected motivation, placing satisfaction upstream of motivation, and Aulia et al. (2024) likewise modeled satisfaction as an antecedent of motivation.

Cross-Cutting Theme: Pathways Among the Determinants

The four studies that tested indirect effects proposed two competing models. In the **satisfaction-mediated model** (Chindy et al., 2021), competence and motivation increase job satisfaction, which then raises performance. In the **motivation-mediated model** (Aulia et al., 2024; Prabowo & Herawati, 2023; Puspita et al., 2022), competence and job satisfaction strengthen work motivation, which then drives performance. Three of the four mediation studies supported motivation as the mediating variable, suggesting that motivation is the more proximal determinant of performance, while competence and satisfaction act as more distal antecedents. Nevertheless, because all studies used cross-sectional data, neither model can establish the actual direction of these effects. Figure 2 summarizes the integrated conceptual model that emerges from the synthesis.

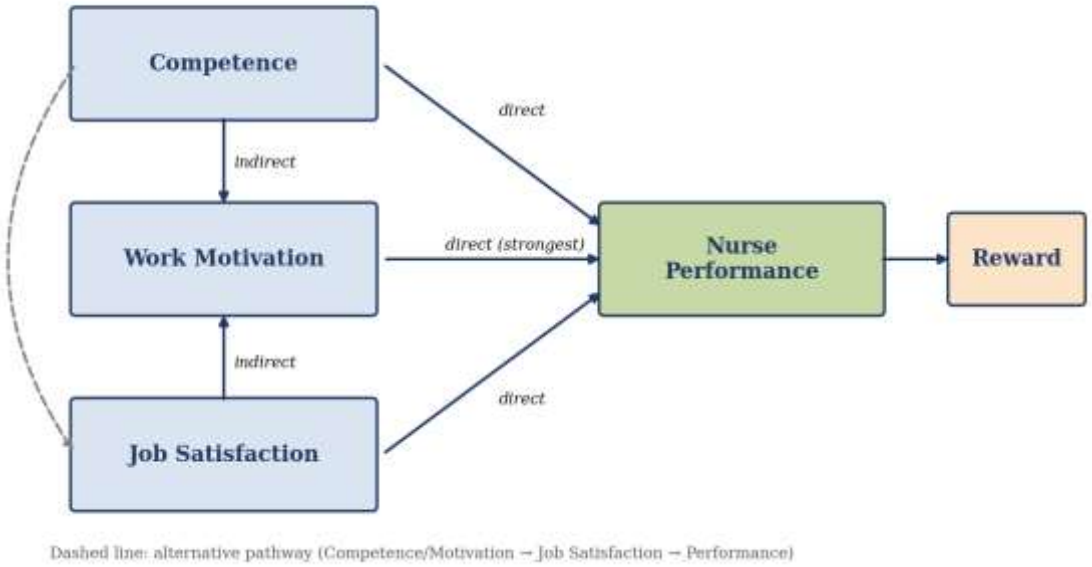

Figure 2. Integrated conceptual model of the determinants of nurse performance derived from the review

DISCUSSION

Principal Findings

This review synthesized nine studies on the determinants of nurse performance in Indonesian hospitals. It found that work motivation, competence, and job satisfaction were all positively associated with nurse performance, and that these determinants are interrelated rather than independent. Work motivation emerged as the most consistent and most proximal determinant, while competence and job satisfaction contributed both directly and indirectly, most often through motivation.

Interpretation in Light of Theory and Prior Evidence

The central role of work motivation is consistent with expectancy theory, which holds that effort, and therefore performance, rises when nurses believe their effort will lead to good performance and that good performance will lead to valued rewards (Mutmainah et al., 2023). The finding by Lase et al. (2025) that performance affects reward supports the performance–reward link in this chain. The results also fit self-determination theory, which proposes that motivation grounded in autonomy, competence, and relatedness produces more sustained and higher-quality performance (Ryan & Deci, 2000). Notably, "competence" in self-determination theory refers to the psychological need to feel effective, and the pathway from professional competence to motivation found by Puspita et al.

(2022) and Aulia et al. (2024) is consistent with the idea that skilled nurses feel more capable and therefore more intrinsically motivated.

The competence findings support the AMO framework, in which ability is a necessary condition for performance (Appelbaum et al., 2000). Competency theory similarly argues that underlying characteristics such as knowledge, skills, and self-concept are causally related to superior job performance (Spencer & Spencer, 1993). In nursing, where errors can have serious consequences for patients, competence is a prerequisite: motivation without competence may result in effort that is well intentioned but clinically unsafe. The AMO lens also shows what was missing from the included studies, namely the "opportunity" component, which covers staffing levels, workload, resources, and leadership support. Only Puspita et al. (2022) included an organizational factor (transformational leadership).

The job satisfaction findings are consistent with the meta-analysis by Mukhofi et al. (2024), which reported a moderate positive correlation between job satisfaction and job performance across occupations. However, the disagreement among included studies about where satisfaction sits in the causal chain reflects a long-standing theoretical debate. Herzberg's two-factor theory treats satisfaction as the result of intrinsic motivators such as achievement and recognition (Herzberg et al., 1959), which would place satisfaction and motivation close together. The Porter and Lawler (1968) model, in contrast, suggests that performance followed by fair rewards produces satisfaction, which would reverse the direction assumed in most included studies (Alshaibani et al., 2024). Because all included studies were cross-sectional, reverse or reciprocal causation cannot be ruled out. The more defensible conclusion is that motivation, satisfaction, and performance probably reinforce one another over time.

Research Gaps and Evidence Gaps

The review revealed several important gaps, summarized in Table 8 and discussed below.

Methodological gap. The most important gap is the complete reliance on cross-sectional designs. None of the included studies followed nurses over time or tested an intervention designed to increase motivation, competence, or satisfaction. As a result, the review can describe associations but cannot confirm that raising any of these determinants will improve performance. Longitudinal designs using cross-lagged panel models would allow the competing directional hypotheses to be tested, and intervention studies such as competency-based training or motivation-enhancing reward systems would provide stronger evidence for management decisions.

Measurement gap. Nurse performance was mostly measured through self-reported questionnaires completed at the same time and by the same respondents as the predictor variables. This practice inflates correlations through common method variance (Podsakoff et al., 2003) and may be affected by social desirability, since nurses may overrate their own performance. No study linked nurse performance to objective indicators such as nursing documentation quality, medication errors, patient falls, or patient satisfaction. The absence of patient-level outcomes is a major gap, because the ultimate justification for improving nurse performance lies in its effect on patient care.

Theoretical gap. The included studies proposed conflicting causal models, placing either job satisfaction or work motivation as the mediator. Few studies grounded their hypotheses explicitly in theory, and none tested competing models against each other within the same dataset. Future research should build models from explicit theoretical frameworks such as AMO, self-determination theory, or the job demands–resources model, and compare alternative specifications empirically. Contextual gap. Every included study came from Indonesia, which provides deep insight into one health system but limits generalizability. Moreover, the included studies focused almost entirely on individual-level factors and largely ignored organizational factors such as staffing, workload, leadership, and work environment, which are known to influence nurse

outcomes (Aiken et al., 2014). The post-pandemic context also raises the issue of burnout, which is widespread in nursing and may weaken the motivation–performance link (Dall'Ora et al., 2020); none of the included studies examined burnout as a moderator or confounder.

Population and subgroup gap**.** The studies did not distinguish between nurses with different employment statuses (civil servants, contract, or honorary nurses), educational levels (diploma, bachelor's, or professional nurse), or generations. These subgroups may differ in what motivates them and in their access to competence development. Studies in specialty units such as intensive care, emergency, and psychiatric care were also scarce, with only one study conducted in a psychiatric hospital.

Implications for Practice

Although causal claims should be made cautiously, the consistency of the findings supports several practical recommendations for hospital managers and nurse leaders. First, because motivation was the most consistent determinant, hospitals should develop motivation-enhancing systems that combine fair and transparent rewards with intrinsic motivators such as recognition, meaningful work, autonomy, and career development. Second, continuous competence development through structured training, clinical supervision, credentialing, and competency-based career ladders should be treated as an investment that improves performance both directly and by strengthening motivation. Third, hospitals should monitor job satisfaction regularly and respond to its drivers, including workload, working conditions, relationships with supervisors, and compensation. Finally, performance management systems should link performance appraisal to rewards in a fair way, reinforcing the motivation–performance–reward cycle reported by Lase et al. (2025).

Strengths and Limitations of the Review

This review has several strengths. It followed the PRISMA 2020 guideline, used a structured PICOS question, applied a standardized critical appraisal tool, and assessed risk of bias across multiple domains. It also included Indonesian-language literature that is often missed by reviews limited to international databases. The review also has limitations. First, only three databases were searched, and major nursing databases such as CINAHL and Scopus were not included, so relevant studies may have been missed. Second, a large number of reports (n = 103) could not be retrieved, which may have introduced selection bias. Third, the heavy reliance on Google Scholar may have increased the proportion of studies from journals with variable peer-review standards. Fourth, the heterogeneity of analytical models and inconsistent reporting of effect sizes prevented meta-analysis, so the strength of each relationship could not be quantified. Fifth, restricting language to English and Indonesian and the period to 2021–2026 may limit the breadth of evidence. Finally, the review protocol was not registered in advance in a registry such as PROSPERO.

CONCLUSION

This systematic review found that work motivation, competence, and job satisfaction are interrelated determinants of nurse performance in hospital settings. Work motivation was the most consistent and proximal determinant, supported by all nine included studies. Competence served as a foundational capability that improves performance directly and indirectly by strengthening motivation and satisfaction. Job satisfaction was positively associated with performance, although its position in the causal chain, as mediator or antecedent, remains unresolved. The overall quality of evidence was moderate to high, but the evidence base is limited by uniform cross-sectional designs, a single-country context, self-reported performance measures, and inadequate control of confounding.

REFERENCES

Al-Khaledi, M. (2022). Job Satisfaction of Arab Speech-Language Pathologists in Different Work Settings in Kuwait Using the Job Satisfaction Survey. Perspectives of the ASHA Special Interest Groups, 7(1), 259–267. https://doi.org/10.1044/2021_PERSP-21-00233

AlRatrout, S., Abu Khader, I., ALBashtawy, M., Asia, M., Alkhawaldeh, A., & Bani Hani, S. (2025). The impact of The Quality and Safety Education (QSEN) program on the knowledge, skills, and attitudes of junior nurses. PLOS ONE, 20(1), e0317448. https://doi.org/10.1371/journal.pone.0317448

Alshaibani, N. M., Aboshaiqah, A. E., & Alanazi, N. H. (2024). Association of Job Satisfaction, Intention to Stay, Organizational Commitment, and General Self-Efficacy Among Clinical Nurses in Riyadh, Saudi Arabia. Behavioral Sciences, 14(12), 1140. https://doi.org/10.3390/bs14121140

Amelia Chindy, Nuryanti Nuryanti, & Machasin Machasin. (2021). PENGARUH KOMPETENSI DAN MOTIVASI KERJA TERHADAP KINERJA PERAWAT MELLUI KEPUASAN KERJA SEBAGAI VARIABEL INTERVENING PADA RUMAH SAKIT JIWA TAMPAN PROVINSI RIAU. Jurnal Online Mahasiswa, 8.

Dismas Persada Dewangga Pramudita, & Agatha Mayasari. (2025). The Effect of Work Motivation and Job Motivation on Hospital Employee Performance. The Management Journal of Binaniaga, 10(01), 29–40. https://doi.org/10.33062/mjb.v10i01.88

Elisabhet, T., Awaludin, R., Purwanto, I., & Sudrajat, A. (2025). Analysis of the Level of Work Motivation Related to Nurse Performance". Indonesian Journal of Global Health Research, 7(2), 985–992. https://doi.org/10.37287/ijghr.v7i2.5886

Gultom, J. B., Nurhasanah, N., & Sagala, L. (2025). Workload, Motivation, and Their Influence on Nurse Performance: Evidence from Setio Husodo Hospital. Global Insights in Management and Economic Research, 1(3), 142–152. https://doi.org/10.53905/Gimer.v1i03.23

Inas Syabanasyah, & Solehudin Solehudin. (2023). Hubungan Pengetahuan dan Kepatuhan Perawat dengan Penerapan Budaya Keselamatan Pasien. USADA NUSANTARA : Jurnal Kesehatan Tradisional, 2(1), 229–238. https://doi.org/10.47861/usd.v2i1.720

Jones, C. L., Jensen, J. D., Scherr, C. L., Brown, N. R., & Christy, K. ; W. J. (2022). The Health Belief Model as an explanatory framework in communication research. Health Communication, 37.

Lase, I., Priadana, S., & Mulyaningrum, M. (2025). Influence of Competence and Motivation on Performance and Impact on Reward among Nurses. JMMR (Jurnal Medicoeticolegal Dan Manajemen Rumah Sakit), 14(2), 263–279. https://doi.org/10.18196/jmmr.v14i2.589

Mukhofi, L., Peristiowati, Y., Prasetyo, J., Sasmito, P., & Prasetya, F. I. (2024). Motivation, work environment, job satisfaction, and job performance among nurses: An inferential analysis. Malahayati International Journal of Nursing and Health Science, 7(5), 636–647. https://doi.org/10.33024/minh.v7i5.543

Mutmainah, M., Vanchapo, A. R., Lewar, E. S. B., Tusi, J. S., Wang, Y., & Zou, G. (2023). Relationship Between Work Motivation and Health Worker Performance at Kronjo Health Center. Journal of World Future Medicine, Health and Nursing, 1(2), 102–113. https://doi.org/10.55849/health.v1i2.450

Ni Nyoman Sintari, S., & Gede Subhaktiyasa, P. (2024). Pengaruh Kepuasan Kerja dan Motivasi terhadap Kinerja Perawat di Rumah Sakit X Denpasar. Jurnal Manajemen Dan Ilmu Administrasi Publik (JMIAP), 6(4), 496–501. https://doi.org/10.24036/jmiap.v6i4.895

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ, n71. https://doi.org/10.1136/bmj.n71

Prabowo, W. A. S., & Herawati, N. (2023). DETERMINATION OF THE EFFECT OF JOB SATISFACTION AND WORK MOTIVATION ON THE PERFORMANCE OF NURSES

IN THE COVID-19 ENDEMIC. Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA), 7(3), 781–789. https://doi.org/10.31955/mea.v7i3.3439

Puspita, E., GW, S. H., & Hawignyo, H. (2022). Kepemimpinan Transformasional dan Kompetensi terhadap Peningkatan Motivasi serta Dampaknya pada Kinerja Perawat. Journal of Management and Bussines (JOMB), 4(1), 708–722. https://doi.org/10.31539/jomb.v4i1.3450

Rosyita, H., Aditaruna, D., & Sugiharto, S. (2021). Motivasi Kerja dan Kompetensi Profesional Terhadap Kinerja Perawat di Ruang Rawat Inap Bougenvil dan Seruni Rumah Sakit Umum Daerah Cibinong Bogor. Jurnal Manajemen Kesehatan Yayasan RS.Dr. Soetomo, 7(1), 78. https://doi.org/10.29241/jmk.v7i1.600

Soesanto, E., Yanto, A., Irani, N., Pranata, S., Rejeki, S., & Sasmito, P. (2022). Job satisfaction among primary health care nurses. International Journal of Public Health Science (IJPHS), 11(4), 1416. https://doi.org/10.11591/ijphs.v11i4.21529

Sudarmo, Fauziah, M., Anasrulloh, M., Hastuti, M. A. S. W., Putra, E. M., & Chaniago, D. (2025). Transformational Leadership Relationship, Work Environment, Job Satisfaction Motivation, and Hospital Employee Performance. PaperASIA, 41(4b), 482–493. https://doi.org/10.59953/paperasia.v41i4b.190

Widya Aulia, Reza Aril Ahri, & Ikhram Hardi S. (2024). Pengaruh Kompetensi dan Kepuasan Kerja Melalui Motivasi Terhadap Kinerja Perawat di RSUD Haji Padjonga Daeng Ngalle. Journal of Aafiyah Health Research (JAHR), 5.

World Health Organization. (2020). State of the world's nursing 2020: Investing in education, jobs and leadership.