

Direct Impact of Awareness and Management Commitment on Patient Safety Culture in Hospitals

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Keywords:	Abstract
Awareness, Management Commitment, Nurse Competencies, Patient Safety Culture, PLS-SEM.	Patient safety culture remains insufficient in many hospitals despite the existence of formal policies, as incident prevention depends on staff awareness, organizational commitment, and professional competence. This study examined the direct effects of awareness and management commitment on patient safety culture and assessed nurse competence as an intervening variable at Citra Harapan Hospital, Bekasi City. A quantitative cross-sectional survey was conducted from January to April 2026 involving 115 nurses selected through saturated sampling. Data were collected using Likert-scale questionnaires and analyzed using partial least squares structural equation modeling (PLS-SEM) with SmartPLS, including model-fit, direct-effect, and specific indirect-effect tests. The model demonstrated strong explanatory power for patient safety culture ($R^2 = 0.898$) and acceptable model fit (SRMR = 0.064). Awareness and management commitment positively affected nurse competence ($\beta = 0.438$ and $\beta = 0.481$, respectively; $p < 0.001$). Both variables also had significant direct effects on patient safety culture ($\beta = 0.471$ and $\beta = 0.538$, respectively; $p < 0.001$), with management commitment demonstrating the strongest influence. However, nurse competence did not directly affect patient safety culture ($\beta = 0.015$; $p = 0.771$) and did not mediate the effects of awareness and management commitment. Therefore, strengthening patient safety culture requires sustained staff awareness and managerial support, while competency development alone is insufficient to transform organizational safety norms.

INTRODUCTION

Patient safety is a fundamental priority in the implementation of modern healthcare services and is a key indicator of hospital service quality. In the global context, patient safety is not only viewed as an operational aspect but also as an integrated system that includes risk identification, error prevention, and incident management to minimize adverse impacts on patients. The World Health Organization and various international agencies have emphasized that patient safety incidents remain one of the major causes of preventable morbidity and mortality in healthcare facilities. Therefore, improving patient safety has become a primary priority within modern healthcare systems (Auraaen et al., 2018; Bates & Singh, 2018; Organization, 2021; Slawomirski & Klazinga, 2022; Wears & Sutcliffe, 2019).

Patient safety culture is a key concept in these efforts and is defined as a set of shared values, beliefs, competencies, and behavioral patterns developed collectively by healthcare workers to minimize the risk of patient harm and promote organizational learning from errors. Patient safety culture plays an essential role in establishing safe, effective, and patient-centered healthcare services. A strong safety culture encourages incident reporting, open communication, effective teamwork, and continuous system improvement (Gunawan & Hariyati, 2019). Conversely, weaknesses in safety culture are reflected in the presence of a blame culture, low incident reporting rates, communication barriers, and inadequate responses

to errors (Kusumawati et al., 2019).

Various global reports indicate that patient safety culture remains suboptimal. Approximately one in ten patients in healthcare facilities in developed countries experience preventable harm during the care process (He et al., 2023). This condition demonstrates that existing safety systems are not fully effective without the support of a strong organizational culture. Recent studies have shown that dimensions such as open communication, supervisor support, and organizational learning are significantly associated with patient safety outcomes (Simsekler et al., 2025). Furthermore, cross-country research confirms that strengthening safety culture requires a systemic approach based on effective leadership and organizational commitment (Levovnik et al., 2025).

Similar conditions are also observed in the national context. Research in Indonesia indicates that patient safety culture continues to face various challenges, including delays in incident reporting, fear of sanctions, and limited communication openness among healthcare workers (Kusumawati et al., 2019). Another systematic study revealed that communication, non-punitive responses to errors, and reporting systems were among the weakest dimensions in implementing patient safety culture in hospitals (Gunawan & Hariyati, 2019). These findings indicate that although patient safety policies have been established, the internalization and practical implementation of safety culture remain insufficient (Amanda et al., 2021).

From both theoretical and empirical perspectives, patient safety culture is influenced by various factors at individual and organizational levels. One of the primary factors is healthcare workers' awareness of patient safety. Awareness reflects an individual's ability to recognize clinical risks, understand the importance of patient safety, and proactively prevent errors. Low safety awareness may result in healthcare workers failing to recognize the urgency of reporting incidents, identifying potential risks, and implementing appropriate mitigation strategies (Aloufi & Alharbi, 2023; Waruwu, 2021). Previous research demonstrates that safety awareness is positively associated with open communication and speaking-up behavior in the context of patient safety (Lee et al., 2023).

The second factor is management commitment, particularly the commitment of hospital leaders to supporting patient safety initiatives (Alingh et al., 2018). This commitment is reflected through the establishment of policies, supervision, resource allocation, and active managerial involvement in creating a safe working environment. Research indicates that leadership commitment directly influences staff safety behavior and compliance with safety procedures (McGonagle et al., 2016). Moreover, consistent leadership prioritization of safety has been shown to improve communication, increase staff participation, and reduce patient safety incidents (Manalu et al., 2024; Nurumal et al., 2020).

The third factor is nurse competence, which includes knowledge, skills, and professional attitudes required to provide safe healthcare services. Adequate competence enables nurses to identify risks, make appropriate clinical decisions, and communicate effectively within healthcare teams. Research indicates that nurse competence develops through continuous experience, education, and professional learning and represents an important factor in ensuring the effective implementation of patient safety policies in clinical practice (Irviana, 2025; Nurumal et al., 2020).

The relationship between awareness, management commitment, and nurse competence with patient safety culture has been supported by various empirical studies. Awareness

promotes proactive behaviors in error prevention and incident reporting, management commitment creates an organizational environment that supports safety practices, and nurse competence ensures that safety procedures are consistently implemented. The integration of these three factors is essential for establishing a strong and sustainable patient safety culture (He et al., 2023; Aloufi & Alharbi, 2023; Gunawan & Hariyati, 2019).

Citra Harapan Hospital (RSCH) in Bekasi City continues to face challenges in achieving an optimal patient safety culture. Although survey results indicate annual improvements, the achievement has not yet reached the target of the good category (>75%). In 2023, patient safety culture reached 57.78%, increasing to 62.50% in 2024 and 69.60% in 2025. However, several dimensions remain relatively low, particularly staffing and work pace, patient safety incident reporting, open communication, responses to errors, and the handover and information exchange processes between units. The preliminary study also showed that patient safety culture reached only 74.26%, which remains below the expected standard. Furthermore, supporting factors, including awareness, management commitment, and nurse competence, were still categorized as moderate based on the Three Box Method. These findings indicate that improving patient safety culture depends not only on individual awareness but also on management commitment, nurse competence, communication effectiveness, and organizational support in establishing a safe working environment.

Based on these conditions, this study focuses on analyzing the effects of awareness and management commitment on patient safety culture with nurse competence as an intervening variable at Citra Harapan Hospital, Bekasi City. The research was limited to a quantitative approach using a cross-sectional design and questionnaires administered to healthcare workers. The variables examined included awareness, management commitment, nurse competence, and patient safety culture. The study aimed to analyze direct and indirect relationships among variables, including the mediating role of nurse competence in strengthening patient safety culture. The findings are expected to provide theoretical contributions to healthcare management studies and serve as a basis for hospitals in developing strategies to improve healthcare worker competence, strengthen managerial commitment, enhance patient safety awareness, and establish a more effective, sustainable, and patient-centered safety culture.

RESEARCH METHODS

This study employed a quantitative method with a cross-sectional design to examine the effects of awareness and management commitment on patient safety culture, with nurse competence as an intervening variable. Data were collected through questionnaires administered to respondents and were statistically analyzed to test the relationships among variables based on the proposed research hypotheses. The study variables included awareness (X1) and management commitment (X2) as independent variables, nurse competence (Z) as an intervening variable, and patient safety culture (Y) as the dependent variable.

This research was conducted at Citra Harapan Hospital, Bekasi City, which was selected due to its ongoing efforts to strengthen patient safety implementation. Respondents were nurses from various service units, including inpatient and outpatient units, emergency departments, operating rooms, and other supporting units. The research was conducted from January to April 2026, covering research preparation, instrument validation, data collection, data analysis, and report preparation.

Population and Sample

The research population is all nurses who work at Citra Harapan Hospital, Bekasi City as many as 115 people. Because the population is relatively small, the study uses a saturated sampling technique (total sampling), so that all members of the population are used as research respondents.

Data Collection Techniques

Data was collected using a survey method through a questionnaire on the Likert scale. The research instrument measured four variables, namely Awareness, Management Commitment, Nurse Competencies, and Patient Safety Culture, which were compiled based on previous research instruments that had been validated. The questionnaire is distributed directly or through an electronic form after obtaining permission from the hospital. Before filling in, respondents were given an explanation of the purpose of the research and the guarantee of data confidentiality.

Data Analysis Techniques

Data analysis was carried out using Structural Equation Modeling (SEM) with the help of AMOS software to test the relationships between variables simultaneously. The analysis began with descriptive statistics to describe the characteristics of respondents and the conditions of each research variable. Next, data assumption testing was carried out, such as normality, missing data, outliers, and multicollinearity. If the data does not meet the assumption of normality, the analysis will be carried out using PLS-SEM with the help of SmartPLS.

RESULTS AND DISCUSSION

Goodness-of-Fit Model

Once the measurement model is evaluated, the analysis is continued with the Goodness-of-Fit testing of the model. This evaluation includes the R Square value to see the model's clear power to endogenous constructs as well as the Model Fit index available in the SmartPLS Algorithm results.

R Square

The value of R Square indicates the proportion of endogenous construct variance that can be explained by the predictive constructs in the model. The R Square values of 0.75, 0.50, and 0.25 can be used as a guideline for strong, moderate, and weak categories, respectively.

Table 1 R Square Test Results

Variable endogenous	R Square	R Square Adjusted	Criteria
Patient Safety Culture	0,898	0,895	Strong

Source: Results of PLS SmartPLS Algorithm based on research data (2026)

The R Square Patient Safety Culture value is 0.898 with the R Square Adjusted is 0.895. This shows that 89.78% of the Patient Safety Culture variance can be explained by predictive constructs in the model, while the remaining 10.22% can be explained by other factors outside the model. This value is included in the strong category, so the model has a high ability to explain the Patient Safety Culture.

Model Fit

The Fit model was evaluated using the Standardized Root Mean Square Residual (SRMR) value. The SRMR value indicates the average difference between the observed correlation and the correlation predicted by the model. The model is declared to have a good level of conformity if the SRMR value is less than 0.08.

Table 2 Fit Model Results

Parameter	Saturated Model	Estimated Model	Cut-off	Interpretasi
SRMR	0,064	0,064	< 0.08	Model fit

Source: Results of PLS SmartPLS Algorithm based on research data (2026)

The results of the Model Fit showed an SRMR value of 0.064 in the estimated model and 0.064 in the saturated model. Both values are smaller than the 0.08 limit. Thus, the research model is declared to have a good level of suitability or a fit model based on SRMR parameters.

Uji Hypothesis

Hypothesis testing was performed using a SmartPLS bootstrapping procedure with 500 subsamples, bidirectional testing, and a significance rate of 5%. The direction of influence is determined based on the value of the Original Sample. An Original Sample value greater than 0 indicates a positive influence direction, while a value less than 0 indicates a negative influence direction. The significance of the relationship is determined based on P Values, i.e. the relationship is stated to be significant if the P Values are <0.05 and insignificant if the P Values are >0.05. The values of Sample Mean, Standard Deviation, and T Statistics are presented as supporting information for the bootstrapping results. In PLS-SEM, the simultaneous influence hypothesis is not tested using the F test as in linear regression. Therefore, H1 is assessed at the model level based on the R Square Patient Safety Culture value and model suitability through SRMR. Meanwhile, H2 to H6 are tested based on direct effects and H7 to H8 are tested based on specific indirect effects.

Simultaneous Direct Influence

Table 3 Results of Simultaneous Influence Hypothesis Test

Construct endogenous	R Square	R Square Adjusted	SRMR	Remarks
Patient Safety Culture	0,898	0,895	0,064	H1 Accepted

Source: Primary data processing (2026)

Based on Table 3, the R Square Patient Safety Culture value of 0.898 shows that Awareness, Management Commitment, and Nurse Competencies together are able to explain 89.78% of the variation in Patient Safety Culture, while the remaining 10.22% are explained by other variables outside the model. An Adjusted R square value of 0.895 indicates that the model's explanatory ability remains strong after adjusting for the number of predictors. The SRMR value of 0.064 is smaller than 0.08, so the model is declared fit. Thus, H1 is accepted at the model level.

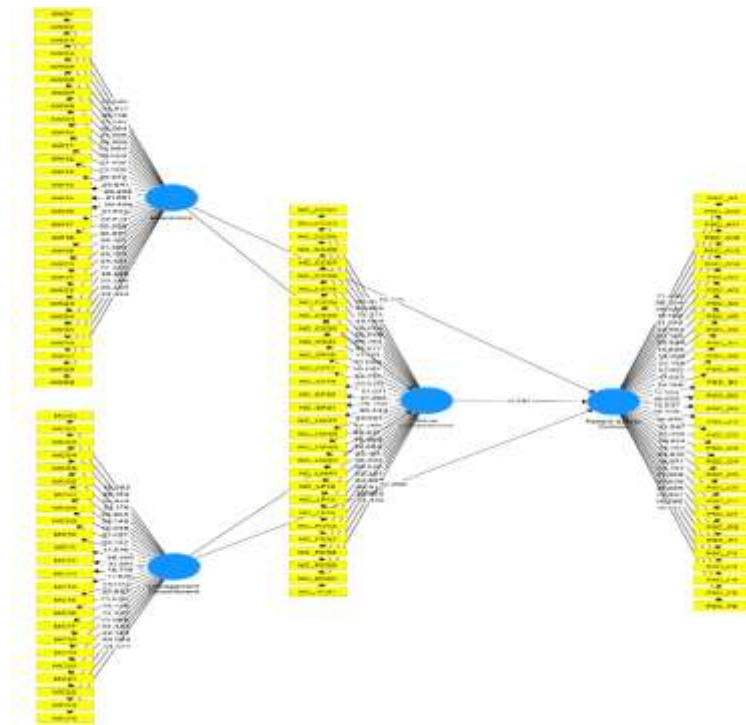


Figure 1 Research Model

Partial Direct Influence

The criteria for accepting the hypothesis of partial direct influence is if the direction of the Original Sample value is in accordance with the hypothesis and the P Values <0.05 . A positive Original Sample value indicates that an increase in exogenous variables is followed by an increase in endogenous variables.

Table 4 Results of Partial Direct Influence Hypothesis Test

	Intervariable Relationships	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Remarks
H2	Awareness → Nurse Competencies	0,438	0,434	0,089	4,917	<0.001	H2 Accepted
H3	Management Commitment → Nurse Competencies	0,481	0,486	0,093	5,155	<0.001	H3 Accepted
H4	Awareness → Patient Safety Culture	0,471	0,477	0,046	10,271	<0.001	H4 Accepted
H5	Management Commitment → Patient Safety Culture	0,538	0,535	0,052	10,399	<0.001	H5 Accepted
H6	Nurse Competencies → Patient Safety Culture	0,015	0,013	0,053	0,291	0,771	H6 Rejected

Source: Primary data processing (2026)

Based on table 4, it can be concluded that the findings of this study answer the research hypothesis as follows:

1. Awareness of Nurse Competencies has an Original Sample value of 0.438 with a P Values of <0.001. A positive coefficient value indicates that increasing Awareness will increase Nurse Competencies. Because the P Values <0.05, the influence is significant, so H2 is accepted.
2. Management Commitment to Nurse Competencies has an Original Sample value of 0.481 with a P Values of <0.001. A positive coefficient value indicates that increasing Management Commitment will increase Nurse Competencies. Because the P Values <0.05, the influence is significant, so H3 is accepted.
3. Awareness of Patient Safety Culture has an Original Sample value of 0.471 with a P Values of <0.001. A positive coefficient value indicates that increasing Awareness will increase Patient Safety Culture. Because the P Values <0.05, the influence is significant, so H4 is accepted.
4. Management Commitment to Patient Safety Culture has an Original Sample value of 0.538 with a P Values of <0.001. A positive coefficient value indicates that increasing Management Commitment will improve the Patient Safety Culture. Because the P values <0.05, the influence is significant, so H5 is accepted.
5. Nurse Competencies on Patient Safety Culture had an Original Sample value of 0.015 with a P Values of 0.771. Despite the positive coefficient direction, the P values of >0.05 indicate that the effect is not significant. Thus, H6 was rejected.

Based on the size of the Original Sample value on the path to Patient Safety Culture, Management Commitment has the largest positive coefficient, followed by Awareness. Meanwhile, Nurse Competencies have a very small and insignificant coefficient. Therefore, changes in Patient Safety Culture in the research model are more related to Awareness and Management Commitment directly.

Indirect Influence (Mediation Role)

Indirect influences were tested to determine whether Nurse Competencies were able to mediate the relationship between Awareness and Management Commitment to Patient Safety Culture. The mediation hypothesis is accepted if the Original Sample value shows the direction according to the hypothesis and the P values <0.05.

Table 5 Indirect Influence Hypothesis Test Results

	Intervariable Relationships	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Remarks
H7	Awareness → Nurse Competencies → Patient Safety Culture	0,007	0,004	0,025	0,276	0,783	H7 Rejected
H8	Management Commitment → Nurse Competencies → Patient Safety Culture	0,007	0,008	0,026	0,287	0,775	H8 Rejected

Source: Primary data processing (2026)

In line with table 5, the results of the indirect influence hypothesis test are as follows:

1. The effect of Awareness on Patient Safety Culture through Nurse Competencies has an Original Sample value of 0.007 with a P Values of 0.783. Although the direction of

influence is indirectly positive, the P Values value >0.05 indicates that the influence is not significant. Thus, Nurse Competencies did not mediate the influence of Awareness on Patient Safety Culture and H7 was rejected.

2. The effect of Management Commitment on Patient Safety Culture through Nurse Competencies has an Original Sample value of 0.007 with a P Values of 0.775. Although the direction of influence is indirectly positive, the P Values value >0.05 indicates that the influence is not significant. Thus, Nurse Competencies did not mediate the influence of Management Commitment on Patient Safety Culture and H8 was rejected.

These results show that the influence of Awareness and Management Commitment on Patient Safety Culture takes place directly. Nurse Competencies was not proven to be an intervening variable because both indirect pathways had P Values greater than 0.05.

Summary of Hypothesis Test Results

The summary of the hypothesis test results in this study can be presented in table 6:

Table 6 Summary of Research Hypothesis Testing Results

No.	Hipotesis	Results	Conclusion
H1	Awareness, Management Commitment, and Nurse Competencies have a simultaneous effect on Patient Safety Culture.	R Square = 0,898; SRMR = 0,064	Accepted
H2	Awareness has a positive effect on Nurse Competencies.	Original Sample = 0,438; P Values $<0,001$	Accepted
H3	Management Commitment has a positive effect on Nurse Competencies.	Original Sample = 0,481; P Values $<0,001$	Accepted
H4	Awareness has a positive effect on Patient Safety Culture.	Original Sample = 0,471; P Values $<0,001$	Accepted
H5	Management Commitment has a positive effect on Patient Safety Culture.	Original Sample = 0,538; P Values $<0,001$	Accepted
H6	Nurse Competencies have a positive effect on Patient Safety Culture.	Original Sample = 0,015; P Values = 0,771	Rejected
H7	Nurse Competencies mediate the influence of Awareness on Patient Safety Culture.	Original Sample = 0,007; P Values = 0,783	Rejected
H8	Nurse Competencies mediate the influence of Management Commitment on Patient Safety Culture.	Original Sample = 0,007; P Values = 0,775	Rejected

Source: Primary data processing (2026)

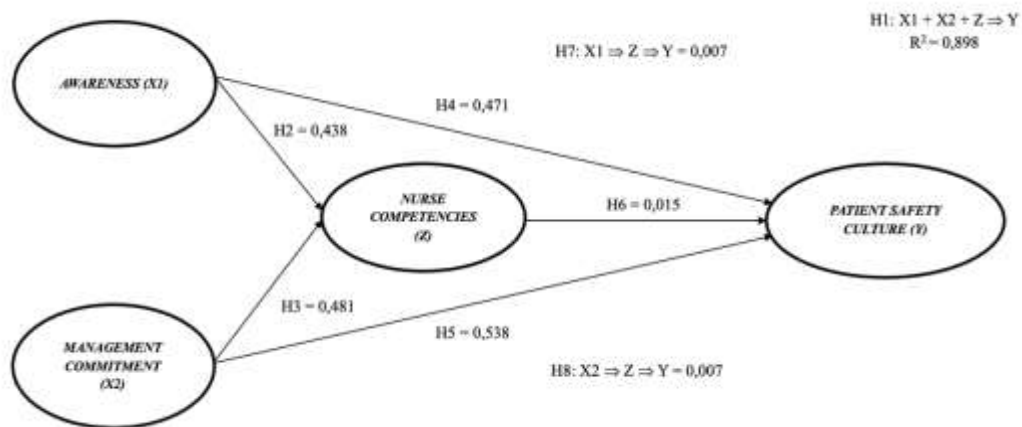


Figure 2 Research Model and Hypothesis Test Results

The Simultaneous Influence of Awareness, Management Commitment, and Nurse Competencies

The results of the study showed that Awareness, Management Commitment, and Nurse Competencies had a simultaneous effect on Patient Safety Culture at Citra Harapan Hospital in Bekasi City. These findings indicate that Awareness, Management Commitment, and Nurse Competencies contribute to improving the Patient Safety Culture at Citra Harapan Hospital, Bekasi City.

Based on the index three box method, the average index value of the Patient Safety Culture variable is in the medium category, while Awareness, Management Commitment, and Nurse Competencies are in the high category. This condition shows that competence, awareness, and management support have been assessed well, but the safety culture still needs to be strengthened, especially in the dimensions of staffing and work pace as well as response to error. In the analysis of the direct relationship between variables, Awareness and Management Commitment had a positive and significant effect on Patient Safety Culture, while Nurse Competencies did not have a significant effect. Awareness and Management Commitment have also been proven to have a positive effect on Nurse Competencies.

Multivariately, the R Square value indicates that the model has very strong explanatory capabilities and is supported by a good model fit. These findings indicate that the patient safety culture at Citra Harapan Hospital is largely influenced by a combination of nurses' individual awareness, management commitment, and nurse competence. Thus, the higher the awareness and commitment of management supported by the competence of nursing personnel, the better the implementation of patient safety culture in hospitals. These findings support SEIPS's view that safety culture is the result of an interaction of individual and organizational factors. These results are in line with He et al. (2023), Hariyati (2019), and Feng et al. (2012) who emphasize the importance of staff awareness, communication, teamwork, safety priorities, and management support and commitment. Practically, hospitals need to combine increased staff awareness with leadership strengthening and safety management systems.

The Effect of Awareness on Nurse Competencies

Awareness has a significant positive effect on Nurse Competencies. This shows that if there is an increase in Awareness, there will also be an increase in Nurse Competencies.

The average index value of the Awareness variable is in the high category where it can be interpreted that the awareness of nurses at Citra Hospital of hope for patient safety is classified as good. Meanwhile, the average index value of the Nurse Competencies variable is also in the high category where it can be interpreted that nurses have strong professional competencies in all dimensions, with interprofessional communication and collaboration as the most prominent aspects.

The positive influence of Awareness on Nurse Competencies shows that professional competence is not only formed from technical experience, but also from cognitive and affective readiness to recognize risks. Nurses who understand near miss, time out, double-check, risk communication, and incident reporting will be better motivated to develop clinical, communication, reasoning, and decision-making skills. A fairly strong coefficient shows that awareness functions as a foundation for learning and self-regulation in professional practice. These findings support Miura et al. (2025) in their thesis proposal, which places perceptions, knowledge, and attitudes as the basis for long-term safety orientation. These results are also mechanistic with Seo and Lee (2022), who found that safety knowledge is a significant mediator between safety climate and nurse safety behavior. On the other hand, Kamran et al.'s (2019) research shows that the awareness of future health workers still has weaknesses in error disclosure. These differences show that awareness is not automatically strong across all dimensions; The benefits to competence are highly dependent on the quality of education, clinical experience, openness to error, and learning opportunities in the workplace.

The Influence of Management Commitment on Nurse Competencies

The results of the hypothesis test show that Management Commitment has a positive and significant effect on Nurse Competencies. This shows that the stronger the Management Commitment, the stronger the Nurse Competencies. Organizational support provides nurses with the opportunity to update their knowledge, improve their skills, and carry out clinical practice according to safety standards.

Based on the results of the Three Box Method, the Management Commitment variable is in the high category. The most prominent dimension is the tangible actions of the leadership in demonstrating commitment to safety, building awareness, and encouraging staff participation. The Nurse Competencies variable is also in the high category, especially in interprofessional communication and collaboration skills. This alignment shows that leadership involvement, providing feedback, discussing incidents, and opportunities to participate in decision-making become a learning environment that supports the development of nurse competencies. However, the consistency of example and the ability of leaders to maintain safety priorities when work pressure increases still needs to be strengthened.

These results are in line with Alingh et al. (2019), who found that commitment-based safety management improves team psychological safety and willingness to speak up. While speaking up is not the whole Nurse Competencies, it is an important element of communication and safety collaboration. The findings are also consistent with the descriptions of Susilawati et al. (2025) and Manalu et al. (2024) in the thesis proposal, which places management support and nurse involvement as drivers of safety practices. Different results were reported by Setyawan et al. (2021) in the manufacturing industry, when management commitment had no significant effect on safety performance, while employee engagement and training were significant. These contextual differences show that management commitments are effective

when they are embodied in concrete practices such as training, engagement, coaching, and work support, rather than just a policy statement.

Pengaruh Awareness terhadap Patient Safety Culture

The results of the hypothesis test show that Awareness has a positive and significant effect on Patient Safety Culture. This shows that the better the Awareness variable, the stronger the Patient Safety Culture formed. Awareness makes nurses more proactive in preventing risks and more responsible for service safety.

Based on the results of the Three Box Method, the Awareness variable is in the high category, especially in the dimension of knowledge and attitude, while Patient Safety Culture is still in the medium category. A high level of knowledge of safety procedures, reporting, and error prevention is in line with strong communication about errors, incident reporting, and organizational learning. However, there are still weaknesses in the perception of the systemic causes of an incident and openness in disclosing the incident. This condition is related to the lack of optimal response to error, because some nurses still feel a tendency to blame individuals and a lack of support for staff involved in errors.

The positive influence of Awareness on Patient Safety Culture shows that safety culture starts from the way health workers understand risks and interpret mistakes as opportunities to learn. These findings are in line with Nurumal et al. (2020), Alsulami et al. (2022), and Younas et al. (2019) as summarized in the thesis proposal. Research by Hemmat et al. (2015) also confirms that an inadequate understanding of the dimensions of safety culture provides a basis for improvement, especially in incident reporting. However, Kamran et al. (2019) found that awareness was not optimal in error disclosure. These inconsistent findings indicate that awareness can be high in general knowledge, but not necessarily accompanied by the courage to reveal errors. Therefore, awareness is one of the important determinants in building a patient safety culture in hospitals.

Pengaruh Management Commitment terhadap Patient Safety Culture

The results of the hypothesis test show that Management Commitment has a positive and significant effect on Patient Safety Culture. This shows that the more consistent the management commitment, the stronger the Patient Safety Culture will be felt. Management Commitment provides signals about behaviors that are valued and becomes the basis for the formation of safety norms in the organization.

Based on the results of the Three Box Method, the Management Commitment variable is in the high category, especially in showing commitment, building awareness, and encouraging staff participation. This pattern is in line with strong communication about errors, incident reporting, continuous learning, and supervisor support in the Patient Safety Culture. The results of the hypothesis test show that Management Commitment has a positive and significant effect on Patient Safety Culture. These findings show that the successful implementation of a patient safety culture is greatly influenced by leadership's commitment to providing policy direction, building open communication, providing resources, and creating a work environment that supports patient safety. The higher the management's commitment, the stronger the patient safety culture is formed.

These findings are supported by Feng et al. (2012), who found managers' safety commitment was related to the perception of nurses' safety culture. Alingh et al. (2019) also showed that a commitment-based management approach increases psychological security and

willingness to talk about safety issues. The results of this study are also in line with Susilawati et al. (2025), Manalu et al. (2024), Faqir (2024), and McGonagle et al. (2016) included in the proposal. On the other hand, Setyawan et al. (2021) found that management commitment is not significant to safety performance in the manufacturing industry. These differences can be caused by differences in sectors, outcomes, the maturity of safety systems, and the extent to which commitments translate into training and employee engagement. In hospitals, the intensity of clinical risk and the reliance on teamwork make management signals closer to the culture of everyday safety.

Pengaruh Nurse Competencies terhadap Patient Safety Culture

The results of the hypothesis test showed that Nurse Competencies did not have a significant effect on Patient Safety Culture. These findings do not mean that nurse competence is not important for patient safety, but it does suggest that competence is not a direct determinant of safety culture. Safety culture is a broader concept and is influenced by various organizational factors such as leadership, communication, incident reporting systems, organizational climate, and management support. Thus, even though nurse competence is at a high level, the implementation of a patient safety culture still requires the support of the organization's system as a whole.

Based on the results of the Three Box Method, Nurse Competencies is in the high category in all dimensions, with communication and interprofessional collaboration being the most prominent aspects. However, Patient Safety Culture is still in the medium category, especially due to weaknesses in staffing and work pace, response to error, hospital management support, and handoffs and information exchange. The pattern suggests that competent nurses can still work in systems that face limited manpower, high workloads, suboptimal handovers, or responses to errors that are not yet completely nonpunitive. Thus, the professional abilities of individuals have not automatically changed the structural conditions and collective norms of the organization.

These results differ from Hwang (2015), Cho and Choi (2018), Habibi Soola et al. (2022), Zaitoun et al. (2023), and Tasbihi et al. (2025), who reported a positive relationship between safety competencies and safety culture or behaviors. However, Hafezi et al. (2022) show that only part of the dimensions of culture and competence are related to adverse events; The literature they reviewed also showed that not all cultural dimensions were significantly related to safety competencies or outputs. Thus, the relationship between competence and culture can be domain-specific, rather than the global effect that always appears.

The Role of Nurse Competencies Mediation on the Influence of Awareness on Patient Safety Culture

The mediating role of Nurse Competencies in the influence of Awareness on Patient Safety Culture shows that Nurse Competencies do not play a mediating variable in the influence of Awareness on Patient Safety Culture. In other words, although awareness is able to improve nurses' competence, increasing competence is not a mechanism that bridges the influence of awareness on patient safety culture. These findings show that the influence of awareness on patient safety culture occurs more directly than through nurse competencies. Awareness of patient safety encourages safe behavior without having to first improve competence. Therefore, Nurse Competencies do not play a role as an intervening variable in the relationship.

These results differ from the conceptual assumptions of the thesis and from Seo and Lee (2022), who found that patient safety knowledge can mediate the influence of safety climate on safety behavior. However, the same study found that safety motivation does not mediate any form of safety behavior, proving that not all individual mediators function on all outcomes. This difference can occur because Nurse Competencies is a broad construct that includes clinical care, ethics, leadership, communication, professional development, and legal aspects, while Patient Safety Culture is more directly influenced by organizational norms, error communication, reporting, staffing, and management response.

The Role of Nurse Competencies Mediation on the Influence of Management Commitment on Patient Safety Culture

The role of Nurse Competencies mediation on the influence of Management Commitment on Patient Safety Culture has not been proven to play a role based on the results of statistical tests that have been conducted. These findings show that the influence of management's commitment to patient safety culture is not channeled through improving nurse competence, but rather occurs more directly. Thus, the success of management's commitment to building a culture of patient safety does not depend on the competence of nurses as an intermediate variable.

The findings indicate that management's commitment has a strategic role in shaping a culture of safety through various organizational policies, provision of resources, open communication, supervision, non-punitive incident reporting systems, and the creation of a work environment that supports patient safety. While nurse competence is an important aspect of service quality, the formation of a safety culture is more influenced by how the organization creates a work climate that consistently supports safe behavior.

This finding is different from the research of Alingh et al. (2019), which found a full mediation of psychological safety in the relationship between commitment-based safety management and willingness to speak up. These differences show that the effectiveness of mediators is determined by conceptual proximity to outcomes. Psychological safety is directly related to speaking up, while multidimensional Nurse Competencies are not entirely directly related to organizational reporting and support culture. Thus, more specific mediators, such as psychological safety, safety knowledge, teamwork, employee engagement, or safety behavior, may be more appropriate to explain the mechanism of the influence of Management Commitment on Patient Safety Culture.

Research Findings

The results of the study show that the Patient Safety Culture at Citra Harapan Hospital is mainly directly influenced by Awareness and Management Commitment. These findings confirm that patient safety culture is shaped through individual awareness supported by priorities, policies, exemplary, and management support. Awareness and Management Commitment also improve Nurse Competencies. However, Nurse Competencies had no direct effect and did not mediate the influence of these two variables on Patient Safety Culture. Thus, improving nurse competencies needs to be accompanied by strengthening the system, leadership, communication, reporting, and organizational learning.

The synthesis of results shows three main findings. First, the Patient Safety Culture at Citra Harapan Hospital is mainly formed by Awareness and Management Commitment. Second, Awareness and Management Commitment both increase Nurse Competencies, but

these competencies are not a direct determinant of safety culture. Third, the influence of the two predictors on Patient Safety Culture is direct, not through Nurse Competencies. This pattern confirms that improving clinical competence alone is not enough to change culture if it is not accompanied by norms, systems, leadership, and collective awareness.

In line with the findings of the study, the researchers revealed some of the limitations found in the study:

1. This study only involves the nursing profession as a respondent so that the results of the study have not been able to describe the condition of patient safety culture in other health professions. Therefore, the results of this study are still limited to the perspective of nursing personnel.
2. This study uses questionnaires as a data collection instrument so that the information obtained is limited to respondents' answers and has not been able to explore reasons or experiences in depth. Further research is recommended to use interview methods or mixed methods to obtain a more comprehensive understanding.

CONCLUSION

This study demonstrated that awareness, management commitment, and nurse competence collectively influenced patient safety culture at Citra Harapan Hospital, Bekasi City. Partially, awareness and management commitment had significant positive effects on patient safety culture and nurse competence, indicating that increased healthcare worker awareness and stronger managerial commitment were key factors in strengthening patient safety culture. Conversely, nurse competence did not have a significant direct effect on patient safety culture and did not mediate the relationship between awareness and management commitment with patient safety culture. These findings suggest that patient safety culture was influenced more directly by individual awareness and organizational support rather than by nurse competence as an intervening mechanism.

The findings indicate that hospitals should prioritize strengthening management commitment through consistent leadership practices, adequate resource allocation, the implementation of a just culture, and incident reporting systems that promote organizational learning. Furthermore, enhancing awareness should be carried out through continuous education, training, and patient safety initiatives to ensure that safety principles become embedded within the organizational work culture. Although nurse competence was not proven to function as a mediator, competency development remains essential for improving clinical service quality and supporting effective patient safety practices. Future research is recommended to include other healthcare professions, apply mixed-method approaches, and examine additional mediating variables, such as psychological safety, teamwork, or safety behavior, to provide a more comprehensive understanding of the factors influencing patient safety culture in hospitals.

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