



# Implementation of the International Patient Safety Goals in Efforts to Reduce the Risk of Patient Falls in Hospitals: A Behavioral Perspective

Indriyani<sup>1</sup>, Zahroh Shaluhiyah<sup>2</sup>, Daru Lestantyo<sup>3</sup>

<sup>1</sup>Master of Public Health, Faculty of Public Health, Diponegoro University, Semarang, Central Java

<sup>2</sup>Department of Health Promotion and Behavioral Science, Faculty of Public Health, Diponegoro University, Semarang, Central Java

<sup>3</sup>Faculty of Public Health, Diponegoro University, Semarang, Central Java

Email correspondence: [shaluhiyah.zahroh@gmail.com](mailto:shaluhiyah.zahroh@gmail.com)

<p><b>Track Record Article</b></p> <p>Revised: 23 January 2026 Accepted: 28 February 2026 Published: 31 March 2026</p> <p><b>How to cite :</b> Indriyani, Shaluhiyah, Z., &amp; Lestantyo, D. (2026). Implementation of the International Patient Safety Goals in Efforts to Reduce the Risk of Patient Falls in Hospitals: A Behavioral Perspective. <i>Contagion : Scientific Periodical of Public Health and Coastal Health</i>, 8(1), 79–93.</p>	<p style="text-align: center;"><b>Abstract</b></p> <p><i>According to the World Health Organization (WHO), approximately 134 million adverse events occur annually in hospitals in low- and middle-income countries, contributing to an estimated 2.6 million deaths. Patient falls remain one of the most frequent preventable safety incidents in hospital settings. This study aimed to analyze behavioral and organizational factors influencing nurses in implementing the International Patient Safety Goals (IPSG), particularly in fall risk prevention. A quantitative cross-sectional design was employed. The study population consisted of 1,125 nurses at Hospital X, and 290 nurses were selected as the research sample using proportionate stratified random sampling based on the Lemeshow formula. Data were analyzed using Chi-square and multiple logistic regression tests. The results showed significant associations (<math>p &lt; 0.05</math>) between knowledge, attitude, facilities and infrastructure, regulations, coworker support, leadership support, and IPSG implementation. A total of 63.8% of nurses demonstrated good IPSG implementation. Multivariate analysis identified facilities and infrastructure as the most dominant factor (<math>p = 0.0001</math>; <math>OR = 4.562</math>; <math>95\% CI = 2.289-9.094</math>), indicating that adequate facilities increased the likelihood of proper IPSG implementation by 4.562 times compared to inadequate facilities. In conclusion, strengthening structural readiness particularly ensuring adequate safety facilities is essential to improve IPSG implementation in fall risk prevention. However, the cross-sectional design limits causal interpretation, and self-reported data may not fully reflect actual clinical practice.</i></p> <p><b>Keywords:</b> <i>International Patient Safety Goals Implementation, Fall Risk, Nurse Behaviour.</i></p>
--	--

## INTRODUCTION

Patient safety is a system in which hospitals ensure safer patient care by preventing injuries resulting from errors, whether due to performing an incorrect action or failing to take an appropriate action, as well as preventing other unintended events (Amalia, 2024). One of the key objectives of implementing a patient safety system in hospitals is to prevent and reduce the occurrence of patient safety incidents in healthcare services. These patient safety incidents include adverse events, near-miss events, no-harm events, and potential harm events (Mulyadi & Yulia, 2022). From the perspective of patient safety incidents, patient safety across various levels of healthcare services remains poor, both globally and nationally (Ningsih & Endang Marlina, 2020). High-quality healthcare services are reflected through accreditation, which provides benefits for hospitals, patients, and the broader community (Khaulla Miandi & Peristiwati, 2022). Quality improvement in all sectors, particularly in the health sector, can be

achieved in part through hospital accreditation aimed at attaining international service standards. Within an accreditation system that refers to the Joint Commission International (JCI) standards, the most relevant standards related to the quality of hospital services are the International Patient Safety Goals (IPSG) (Irdawati et al., 2021).

According to data from the International Labour Organization (ILO), each year there are approximately 134 million reports related to patient safety incidents, resulting in 2.6 million patient deaths in hospitals (ILO, 2018). In Indonesia, there were 7,465 reported cases in 2019, consisting of 171 deaths, 80 severe injuries, 372 moderate injuries, 1,183 minor injuries, and 5,659 incidents with no injury (Kementerian Ketenagakerjaan Republik Indonesia, 2022; BPJS Ketenagakerjaan, 2024). One of the incidents that frequently occurs among patients is fall-related incidents (Astuti et al., 2021). Previous studies have indicated that patients who experience falls require an average of 12 additional hospitalization days, and the injuries sustained result in a 61% increase in care costs. Thus, it can be stated that fall events can impact various aspects, affecting both patients and the hospital (Mutrika & Hutahaean, 2022).

The role of nurses is to ensure patient safety and prevent harm during the provision of care (Vaismoradi et al., 2020). Hospital X serves as a referral facility for the Central Java region. Interviews performed by researchers with the nursing team manager at Hospital X revealed the occurrence of adverse events (KTD) and near misses (KNC) attributable to either nurses or patients. Research data indicates that the fall incidence among patients at Hospital X in 2022 was 40, comprising 20 KTC occurrences, 13 KTD incidents, 6 KNC incidents, and 1 sentinel incident. In 2023, there were 32 incidents: 21 KTC incidents, 9 KTD incidents, 1 KNC incident, and 1 Potential Injury Condition (KPC) incident. In 2024, there were 11 incidents of falls (8 KTC, 2 KTD, 1 KNC). In light of the aforementioned phenomena, researchers seek to investigate the factors influencing nurses' behavior regarding the execution of international patient safety goals to mitigate the risk of patient falls in hospitals.

## **METHODS**

This study employed a quantitative design with a cross-sectional approach. Hospital X in Semarang City was the site of the research, which was conducted in October 2025. The study population consisted of 1.125 respondents across 47 units in Hospital X. The sample size was calculated using the Lemeshow formula, resulting in a sample of 290 nurses.

This study employed a proportionate stratified random sample method due to the nurse population's distribution throughout diverse work units with differing quantities. A sample of 290 respondents was selected from a total of 1,125 nurses, dispersed proportionally based on

the number of nurses in each work unit. Upon determining the sample size for each unit, respondents were chosen by simple random sampling based on the nurses' names, ensuring that each nurse had an equal probability of selection as a sample.

The PRECEDE–PROCEED model served as the foundational framework for the study's conceptual model, concentrating on the third phase, specifically knowledge and ecological diagnosis, which seeks to identify behavioral and environmental factors that may affect the implementation of international patient safety objectives (Green et al., 2022). The variables in this study include knowledge, attitudes, infrastructure, rules, peer support, and assistance from leadership figures.

Respondent's age was categorized as '20–30 years,' '31–40 years,' '41–50 years,' and 'over 50 years.' Respondent's gender was classified as male and female. Educational attainment was categorized as 'Diploma III (D3),' 'Diploma IV (D4),' and 'Bachelor of Nursing (S1 Ners).' Length of employment was categorized as 'less than 5 years,' '5–10 years,' and 'more than 10 years.' Patient safety training was categorized as yes or no. Implementation of the International Patient Safety Goals was categorized as 'poor' and 'good.' Knowledge was categorized as 'poor' and 'good.' Attitude was categorized as 'negative' and 'positive'. Facilities and infrastructure were categorized as inadequate and adequate. Regulations, coworker support, and leadership support were categorized as poor and good. Knowledge is considered good when nurses are able to understand and apply patient safety procedures. A positive attitude in implementing the International Patient Safety Goals refers to acceptance, responsiveness, appreciation, and a sense of responsibility. Adequate facilities and infrastructure are defined as the availability of resources that support nurses' workload in the hospital. Regulations refer to guidelines, protocols, and standard operating procedures that serve as references in performing work. Nurses are considered to have coworker support when positive and mutually supportive relationships exist among colleagues in carrying out patient safety practices. Leadership support refers to the commitment demonstrated by leaders in improving service quality to meet community needs. The instrument used in this study was a questionnaire administered through an interview method.

Frequency distribution was used to describe the characteristics of the respondents, and cross-tabulation was employed to illustrate the proportion of different categories in relation to the implementation of the International Patient Safety Goals. Logistic regression was applied to determine the relationship between several independent variables which are knowledge, attitude, regulations, facilities and infrastructure, coworker support, and leadership support. Dependent variable, namely the implementation of the International Patient Safety Goals.

Statistical results were expressed as odds ratios (OR). The hypothesis was rejected at a p-value greater than 0.05.

## RESULT

Hospital X in Semarang City is the largest hospital and serves as a referral center for the Central Java region. In addition, it received international accreditation from the Joint Commission International (JCI) in 2015 and 2018. Univariate analysis was conducted as a statistical test to describe the characteristics of the study variables, which included gender, age, education, length of employment, patient safety training, implementation of the International Patient Safety Goals, knowledge, attitude, regulations, facilities and infrastructure, coworker support, and leadership support. The results of the univariate analysis are presented in Table 1.

**Table 1. Frequency Distribution of Respondents**

<b>Characteristics</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	90	31.0
Female	200	69.0
<b>Age</b>		
20-30 Years	36	12.4
31-40 Years	201	69.4
41-50 Years	43	14.8
>50 Years	10	3.4
<b>Education</b>		
D3 (Diploma III)	128	44.1
D4 (Diploma IV)	5	1.8
Bachelor of Nursing	157	54.1
<b>Length of employment</b>		
<5 Years	23	8.0
5-10 Years	119	41.0
> 10 Years	148	51.0
<b>Patient safety training</b>		
No	0	0.0
Yes	290	100.0
<b>Implementation of the International Patient Safety Goals</b>		
Poor	105	36.2
Good	185	63.8
<b>Knowledge</b>		
Poor	115	39.7
Good	175	60.3
<b>Attitude</b>		
Negative	129	44.5
Positive	161	55.5
<b>Facilities and infrastructure</b>		
Inadequate	105	36.2
Adequate	185	63.8

Characteristics	Frequency	Percentage
<b>Regulation</b>		
Poor	70	24.1
Good	220	75.9
<b>Coworker Support</b>		
Poor	144	49.7
Good	146	50.3
<b>Leadership Support</b>		
Poor	102	35.2
Good	188	64.8

Based on Table 1, the frequency distribution of respondents in the implementation of the International Patient Safety Goals shows that most respondents were aged 31–40 years (69.4%) and were predominantly female (69%). Other dominant respondent characteristics included holding a Bachelor of Nursing degree (S1 Ners) (54.1%), having more than 10 years of work experience (51%), and all respondents had participated in patient safety training (100%). The majority of respondents demonstrated good implementation of the International Patient Safety Goals (63.8%), had good knowledge (60.3%), positive attitudes (55.5%), adequate facilities and infrastructure (63.8%), good regulatory support (75.9%), coworker support (50.3%), and leadership support (64.8%).

**Table 2. Determinants of knowledge, attitude, infrastructure, regulations, peer support, and leadership support in the achievement of the International Patient Safety Goal (IPSG)**

Variable	Implementasi International Patient Safety Goal (IPSG)				Total		p-value
	Poor		Good		F	%	
	f	%	f	%			
<b>Knowledge</b>							
Not Good	72	62,6	43	37,4	115	100	0,0001
Poor	33	18,9	142	81,1	175	100	
Good	105	36,2	185	63,8	290	100	
<b>Sikap</b>							
Negative	80	62,0	49	38,0	119	100	0,0001
Positive	25	15,5	136	84,5	161	100	
Total	105	36,2	185	63,8	290	100	
<b>Infrastruktur</b>							
Inadequate	61	58,1	44	41,9	105	100	0,0001
Adequate	44	23,8	141	76,2	185	100	
Total	105	36,2	185	63,8	290	100	
<b>Regulations</b>							
Poor	57	81,4	13	18,6	70	100	0,0001
Good	48	21,8	172	78,2	220	100	
Total	105	36,2	185	63,8	290	100	
<b>Co-Worker Support</b>							
Poor	72	50,0	72	50,0	144	100	0,0001
Good	33	22,6	113	77,4	146	100	
Total	105	36,2	185	63,8	290	100	
<b>Leadership Support</b>							
Poor	70	68,6	32	31,4	102	100	0,0001
Good	35	18,6	153	81,4	188	100	
<b>Total</b>	<b>105</b>	<b>36,2</b>	<b>185</b>	<b>63,8</b>	<b>290</b>	<b>100</b>	

Based on Table 2. The IPSG was applied successfully by 185 (63.8%) and poorly by 105 (36.2%) of the 290 respondents. Nurses with inadequate knowledge (72 people) (62.6%), negative attitudes (80 people) (62.0%), inadequate facilities (61 people) (58.1%), poor regulations (57 people) (81.4%), poor support from colleagues (72 people) (50.0%), and poor support from leaders (70 people) (68.6%) were more likely to have poor implementation. The opposite was true for respondents who had good knowledge (142 people) (81.1%), positive attitudes (136 people) (84.5%), adequate facilities (141 people) (76.2%), good regulations (172 people) (78.2%), good support from leaders (153 people) (81.4%), and good support from colleagues (113 people) (77.4%). Knowledge, attitudes, infrastructure, rules, coworker support, and leadership support were all substantially correlated with IPSG implementation ( $p=0.0001$ ), suggesting that social, organizational, and individual elements all work together to affect IPSG implementation success.

**Table 3. Multiple Logistic Regression Test Results**

Variable	B	Exp (B)	p-value (Bivariate)	p-value (Multivariate)	95% C.I EXP(B)	
					Lower	Upper
Knowledge	1.288	3.626	<0.0001**	<0.0001**	1.801	7.300
Attitude	1.089	2.972	<0.0001**	0.004**	1.409	6.268
Facilities and infrastructure	1.518	4.562	<0.0001**	<0.0001**	2.289	9.094
Regulation	1.163	3.200	<0.0001**	0.008**	1.347	7.605
Coworker Support	0.817	2.263	<0.0001**	0.030*	1.083	4.732
Leadership Support	0.922	2.514	<0.0001**	0.019*	1.163	5.434
Constant	-10.186	.000		0.0001**		

\*Notes : \*= $<5\%$ , \*\*= $<1\%$

Based on Table 3, all independent variables were eligible to be included in the multivariate analysis model because they had Chi-square p-values  $<0.25$ . Statistical testing demonstrated that all independent variables knowledge, attitude, regulations, facilities and infrastructure, coworker support, and leadership support were significantly associated with the implementation of the IPSG at Hospital X. The final multivariate analysis showed that all six potential independent variables, when analyzed together, had p-values  $<0.05$ , indicating that all independent variables were significantly related to the implementation of the IPSG at Hospital X.

Facilities and infrastructure were identified as the most influential factor affecting the implementation of the IPSG with p value  $<0.001$  (OR = 4.562; 95% CI: 2.289–9.094). The availability of adequate facilities and infrastructure increased the likelihood of implementing the IPSG by 4.562 times compared to inadequate facilities and infrastructure. Knowledge was

also shown to be a significant factor influencing the implementation of the IPSPG with a with p value  $< 0.001$  (OR = 3.626; 95% CI: 1.801–7.300). Respondents with good knowledge were 3.626 times more likely to implement the IPSPG compared to those with poor knowledge

Regulation was shown to be a significant factor influencing the implementation of the IPSPG with p-value  $< 0.001$  (OR = 3.200; 95% CI: 1.347–7.605). Respondents who adhered well to regulations were 3.200 times more likely to implement the IPSPG compared to those with poor regulatory adherence. Attitude was also identified as a significant factor associated with the implementation of the IPSPG, p-value  $< 0,001$  (OR = 2,972; 95% CI: 1,409–6,268). Respondents with positive attitudes were 2.972 times more likely to implement the IPSPG compared to those with negative attitudes.

Leadership support was shown to be a significant factor influencing the implementation of the IPSPG, with p-value  $< 0.001$  (OR = 2.514; 95% CI: 1.163–5.434). Respondents who received strong leadership support were 2.514 times more likely to implement the IPSPG compared to those who received weak support. Coworker support was also identified as a significant factor, with p-value  $< 0.001$  (OR = 2.263; 95% CI: 1.083–4.732. Respondents who received good coworker support were 2.263 times more likely to implement the IPSPG compared to those who received inadequate coworker support.

## DISCUSSION

### **The Relationship Between Knowledge and the Implementation of the International Patient Safety Goals at Hospital X**

The study's results indicated that respondents saw the implementation of the International Patient Safety Goal (IPSPG) in terms of knowledge as having a higher percentage of favorable perceptions (60.3%) compared to unfavorable impressions (39.7%). The respondents indicated their disagreement with the process of identifying and assessing patients at risk of falls through the use of yellow fall risk markers as per hospital regulations, and they also disagreed that the installation of patient bed guards constituted an identification and assessment of patients at risk of falling. Respondents unequivocally disagreed that low-risk patients with a score of 0-24 were evaluated daily and reassessed every three days, that moderate-risk patients with a score of 25-44 were assessed every morning and reassessed every three days, and that high-risk patients with a score exceeding 45 were assessed every morning and reassessed every shift, repeated every two days. The findings of this study align with T.A & Pratiwi (2023), which indicated a correlation between nurses' knowledge and the execution of patient safety protocols in the Class 3 Treatment Room at Haji Hospital, Makassar City.

Adequate knowledge is essential for implementing fall-risk patient safety goals. When nurses have insufficient knowledge, the implementation of fall-risk patient safety measures is likely to be suboptimal (Marianna et al., 2024). Nurses' knowledge can be understood as the awareness and understanding they possess regarding the implementation of patient safety practices. Knowledge plays an essential role in shaping comprehensive behavior, as it serves as the foundation for the beliefs that influence an individual's perception of reality. These perceptions subsequently guide decision-making processes and the formation of attitudes toward specific objectives, ultimately affecting a person's behavior (Fitri & Putri, 2025).

Knowledge is required as a supporting factor in fostering confidence, attitudes, and behaviors; therefore, knowledge serves as a foundational element that supports an individual's actions (Rahmi et al., 2021). In general, nurses' knowledge improves when psychological factors and the work environment provide adequate support for them in carrying out their duties. Conversely, when such support is lacking, nurses' level of knowledge tends to be insufficient (Putra et al., 2025). Patient safety is a crucial aspect of healthcare services, and the role of nurses is pivotal in ensuring its successful implementation. By strengthening nurses' knowledge and commitment to patient safety practices, it is expected that a safer, more effective, and higher-quality hospital environment can be achieved for all patients (Idiasari et al., 2025).

### **The Relationship Between Attitude and the Implementation of the International Patient Safety Goals at Hospital X**

The analysis of the correlation between attitudes and the execution of the International Patient Safety Goals (IPSG) revealed that 38.0% of respondents had negative attitudes while demonstrating effective implementation of the IPSG. 84.5% of respondents exhibited favorable attitudes and effective implementation of the International Patient Safety Goals (IPSG). The findings statistically confirmed that attitudes were correlated with the execution of the International Patient Safety Goals (IPSG). These findings correspond with Syam et al., (2018), who identified a correlation between nurses' attitudes and the execution of patient safety goals (SKP). Attitude is a readiness to act and does not constitute a specific motive; in other words, attitude is not an activity but a predisposing factor that influences the emergence of certain behaviors. A positive attitude also strengthens communication between nurses and patients, as well as among healthcare professionals, with the ultimate goal of improving the quality of care and ensuring patient safety (Fitri & Putri, 2025). Although most nurses in this study demonstrated a positive attitude toward patient safety, a small proportion still exhibited attitudes that were less supportive of patient safety implementation. This indicates that, in

addition to attitude, other factors such as physical fatigue, mental workload, and the lack of supporting facilities also influence the quality of patient safety practices (Istikhairyah et al., 2023).

Patient fall prevention is an effort to protect patients from or minimize the risk of injury resulting from falls during the course of care. Such efforts must be grounded in adequate knowledge and supported by the nurse's attitude (Rahmat et al., 2020). A positive attitude in the delivery of nursing care contributes to high-quality services, as nurses who demonstrate good attitudes tend to exercise greater caution in implementing patient safety measures, particularly in reducing the risk of falls in the hospital (S. Wulandari & Widiastuti, 2021).

### **The Relationship Between Facilities and Infrastructure and the Implementation of the International Patient Safety Goals at Hospital X**

Analysis of the correlation between infrastructure and the execution of the International Patient Safety Goal (IPSG) revealed that 41.9% of respondents regarded the infrastructure as insufficient while assessing the implementation of the IPSG as satisfactory. Simultaneously, 76.2% of participants saw the infrastructure as sufficient and the execution of the International Patient Safety Goal (IPSG) as effective. The findings statistically substantiate that infrastructure is correlated with the execution of the International Patient Safety Goal (IPSG). The findings of this study align with Iksan et al., (2025), The facilities and infrastructure at health service establishments are sufficient to facilitate the execution of patient safety.

The availability of facilities and infrastructure must be taken into consideration as essential support for the implementation of a program, as they represent one of the most critical factors in ensuring its successful execution. Adequate facilities and infrastructure can significantly influence nurses' performance (Larasati & Dhamanti, 2021). The availability of comprehensive and fully functional facilities supports healthcare professionals in performing their duties more effectively and reduces the potential for patient-endangering incidents (Iksan et al., 2025).

Adequate facilities and infrastructure play a pivotal role in supporting the implementation of patient safety within hospital settings. High-quality infrastructure such as encompassing comprehensive amenities, sufficient medical equipment, and advanced information technology can contribute to improved patient safety and a reduction in medical error risks. To carry out their responsibilities effectively, nurses and other healthcare professionals require optimal resources, including reliable medical devices and efficient information management systems. Furthermore, well-equipped facilities can enhance healthcare workers' confidence in performing their duties safely (Iksan et al., 2025).

## **The Relationship Between Regulations and the Implementation of the International Patient Safety Goals at Hospital X**

Based on the analysis of the relationship between regulations and the implementation of the International Patient Safety Goals (IPSG), it was found that 18.6% of respondents perceived regulations as unfavorable and the implementation of the International Patient Safety Goals (IPSG) as favorable. Meanwhile, 78.2% of respondents perceived regulations as favorable and the implementation of the International Patient Safety Goals (IPSG) as favorable. These research findings align with Djajasasana et al., (2024), that regulations, such as accreditation standards, have a positive and significant relationship with the implementation of the International Patient Safety Goals (IPSG).

Understanding standard operating procedures (SOPs) can positively influence individual behavior, and a strong association has been identified between SOPs quality and performance outcomes. Nurses also acknowledge the importance of SOPs as hospital regulatory instruments, as they help reduce patient-care issues by prioritizing the quality of care. In their daily practice, nurses are required to follow the sequence of steps outlined in established regulations and SOPs to maintain performance consistency. Achieving this consistency demands strict adherence to SOPs, and the use of centralized data analysis contributes to greater reproducibility in clinical practice (Hadiarto et al., 2021). Comprehensive knowledge of fall-risk standard operating procedures among nurses reflects their commitment to delivering effective preventive interventions for patients vulnerable to falls. It is essential for nurses to recognize all potential risks and hazards that may compromise patient safety. Deviations from the established standard operating procedures during clinical assessment may result in financial consequences or lead to additional adverse health outcomes for patients (Aprisunadi et al., 2023).

Standard operating procedures are essential because they ensure that every service process is carried out in a consistent and predictable manner, thereby enhancing the reliability of hospital services. The presence of standardized procedures also helps minimize the risk of human error, as each step has been clearly defined in advance (Hasanah, 2024). Patient safety targets can only be achieved when the established standard operating procedures are implemented correctly. Failure to adhere to these standards may increase the risk of patient falls. Therefore, nurses and other healthcare professionals must carefully comply with fall-prevention procedures by performing thorough assessments and implementing appropriate preventive interventions (Sari & Bambang, 2023).

## **The Relationship Between Coworker Support and the Implementation of the International Patient Safety Goals at Hospital X**

Coworker support is crucial for fostering collaboration among nurses, enabling the provision of optimal patient care. Without such support, nurses may feel isolated in delivering services. Individuals with high levels of social support tend to be more optimistic about both present and future challenges, possess greater skills in meeting psychological needs, and demonstrate stronger coping systems. They also exhibit lower anxiety levels, enhanced interpersonal skills, improved goal attainment capabilities, and better adaptability to stress (Dwijayanto & Priastana, 2022). Social support refers to the comfort, care, consideration, or any other form of assistance received from others or groups, including from superiors to subordinates, among peers, or from colleagues in other professional roles (Karim et al., 2024).

Teamwork is a significant factor influencing patient safety (Paramita et al., 2020). Effective teamwork serves as a barrier against medical errors. In any situation, a team that combines diverse skills, knowledge, and experience achieves far better performance than individuals working alone. Strong teamwork is a key factor in reducing the risk of medical errors and enhancing patient safety in hospitals (Widiyanto et al., 2022). Patient safety largely depends on effective collaboration among physicians, nurses, and other healthcare professionals. Good coordination within the team enables early detection of safety issues, prompt patient management, and clear communication regarding necessary medical procedures (Suparjo et al., 2025).

## **The Relationship Between Leadership Support and the Implementation of the International Patient Safety Goals at Hospital X.**

This study's results demonstrate a correlation between leadership support and the execution of the International Patient Safety Goals (IPSG). These findings are consistent with Saputra et al., (2025), Support from leadership is a vital element positively correlated with the execution of the International Patient Safety Goals (IPSGs) in healthcare institutions. Management commitment, including structural support, training, and a safety culture, enhances the effective execution of the six IPSGs (identification, communication, drugs, procedures, infection, and fall risk).

Nurses play a vital role in ensuring patient safety in hospitals by adhering to patient safety standards, including exercising leadership to enhance safety outcomes (Wulandari et al., 2023). Leadership in patient safety involves promoting and ensuring the integrated implementation of safety programs within the organization through the application of the seven steps toward hospital patient safety. Leaders are also responsible for maintaining proactive

programs to identify patient safety risks and initiatives to prevent or reduce adverse incidents. Furthermore, leadership involves measuring and evaluating the effectiveness of their contributions in improving both hospital performance and patient safety (Maryani, 2022). Leadership can influence the quality and safety of clinical outcomes. Management support for patient safety is closely linked to staff performance, and it is expected that leaders create a work environment that encourages open communication and fosters a strong patient safety culture (Nabilla & Dhamanti, 2023).

Leadership is a critical factor in achieving the successful implementation of a patient safety culture in hospitals. Head nurses or ward managers need to understand the role of management in overseeing patient safety and enhance monitoring to ensure effective implementation (Indriaty et al., 2021). The implementation of patient safety must begin with leadership, as the role of senior leaders is a key element in designing, revitalizing, and sustaining a safety culture, with leadership itself forming an essential subculture. Strengthening the leadership role of ward managers positively impacts attention to fall-risk prevention, thereby ensuring patient safety throughout hospitalization (Mustika et al., 2021).

## **CONCLUSION**

This study demonstrates that knowledge, attitudes, infrastructure, regulations, co-worker support, and leadership support are all significantly related to the implementation of the International Patient Safety Goals (IPSG), especially in the area of fall prevention ( $p=0.0001$ ). The most important factor, infrastructure, has the highest impact ( $OR=4.562$ ), increasing the likelihood of IPSG implementation by 4.562 times when compared to inadequate conditions, while co-worker support has the smallest but still significant influence ( $OR=2.263$ ). The organizational system's preparedness and leadership's dedication to creating a patient safety culture are also important determinants in fall risk prevention, as this finding demonstrates. A cross-sectional design that cannot explain causal relationships and self-report questionnaire-based measurements that may introduce social bias and not accurately reflect real-world practices in the field particularly in the reassessment and monitoring of patients at risk of falling as well as the researcher's role as a nursing staff member at the hospital where the study was conducted raise concerns about the validity of the study's findings. The implementation of fall risk prevention in hospitals must therefore be strengthened through the development of a team-based safety culture, resocialization and supervision of SOPs, strengthening patient safety facilities, and increasing leadership commitment through regular

monitoring and evaluation. To gain a more thorough and contextual understanding, additional research using a longitudinal or mixed-method design with direct observation is advised.

## REFERENCES

- Amalia, M. (2024). Faktor Penyebab Rendahnya Pelaporan Insiden Keselamatan Pasien. *Jurnal Kesehatan Dan Kedokteran*, 1(3), 174–186. <https://doi.org/https://doi.org/10.62383/vimed.v1i3.599>
- Aprisunadi, A., Bernanda, T., Ifadah, E., & Kalsum, U. (2023). Hubungan Pengetahuan Dengan Kepatuhan Perawat Dalam Melaksanakan Standar Prosedur Operasional Pencegahan Risiko Jatuh. *Jurnal Persatuan Perawat Nasional Indonesia (JPPNI)*, 8(2), 131–138. <https://doi.org/10.32419/jppni.v8i2.448>
- Astuti, N. P., Santos, O. S. C. Dos, Indah, E. S., & Pirena, E. (2021). Upaya Pencegahan Pasien Resiko Jatuh dalam Pelaksanaan Asuhan Keperawatan di Rumah Sakit. *Jurnal Manajemen Asuhan Keperawatan*, 5(2), 81–89. <https://doi.org/10.33655/mak.v5i2.117>
- BPJS Ketenagakerjaan. (2024). *Kecelakaan Kerja Makin Marak dalam Lima Tahun Terakhir*. [www.bpjsketenagakerjaan.go.id/](http://www.bpjsketenagakerjaan.go.id/)
- Djajasasana, C. N., Listyani, N. K., & Sihombing, V. D. (2024). Pengaruh Penerapan IPSG (International Patient Safety Goals) terhadap Kepuasan Pasien Layanan Home Care Smartcare Jakarta. *Innovative: Journal Of Social Science Research*, 4(3), 14934–14949. <https://doi.org/10.31004/innovative.v4i3.11587>
- Dwijayanto, I. M. R., & Priastana, I. K. A. (2022). Hubungan Dukungan Sosial Rekan Kerja dengan Self-Compassion pada Perawat. *Indonesian Journal of Health Research*, 5(2), 91–99. <https://doi.org/https://doi.org/10.51713/idjhr.v5i2.54>
- Fitri, A. U., & Putri, J. A. (2025). Hubungan Pengetahuan Dan Sikap Perawat dengan Penerapan Keselamatan Pasien. *Journal of Public Health*, 3(1), 1–9. <https://jurnalcenderawasih.id/index.php/cjph/article/view/19>
- Green, L. W., Gielen, A. C., Ottoson, J. M., Peterson, D. V., & Kreuter, M. W. (2022). Health Program Planning, Implementation, and Evaluation: Creating Behavioral, Environmental, and Policy Change. In *Johns Hopkins University Press*.
- Hadiarto, R., Ekasari, F., & Yulyani, V. (2021). Evaluasi Penerapan Sasaran Keselamatan Pasien Di UPT Puskesmas Rawat Inap Sukoharjo Pringsewu Lampung (Studi Kasus Pasca Akreditasi). *Jurnal Ilmu Kedokteran Dan Kesehatan*, 8(1), 41–55. <https://doi.org/10.33024/jikk.v8i1.3951>
- Hasanah, S. W. (2024). Strategi Implementasi Keselamatan Pasien untuk Meningkatkan Kualitas Pelayanan di RSUD Abdoel Wahab Sjahranie. *Nusantara Innovation Journal*, 3(1), 12–43. <https://doi.org/10.70260/nij.v3i1.45>
- Idiasari, I., Purnomo, M., & Kartikasari, F. (2025). Hubungan Pengetahuan Perawat Tentang Keselamatan Pasien dengan Penerapan Sasaran Keselamatan Pasien di Rumah Sakit Demak. *INNOVATIVE: Journal Of Social Science Research*, 5(4), 3441–3456. <https://doi.org/ttps://doi.org/10.31004/innovative.v5i4.20295>
- Iksan, W. P., Riu, S. D. M., & Talibo, N. A. (2025). Beban Kerja Perawat Dan Ketersediaan Sarana Dengan Penerapan Patient Safety. *Vitalitas Medis: Jurnal Kesehatan Dan Kedokteran*, 2(3), 27–41. <https://doi.org/10.62383/vimed.v2i3.1659>
- ILO. (2018). *World Employment Social Outlook 2018 Greening With Jobs*. Geneva :International Labour Office. [https://www.ilo.org/weso-greening/documents/WESO\\_Greening\\_EN\\_web2.pdf](https://www.ilo.org/weso-greening/documents/WESO_Greening_EN_web2.pdf)
- Indriaty, J., Kusumapradja, R., & Wahidi, K. R. (2021). Peran Kepemimpinan Kepala Ruangant erhadap Pencegahan Risiko Jatuh dalam Keselamatan Pasien di Rumah Sakit. *Journal of Hospital Management*, 4(1), 420–430.

- [https://digilib.esaunggul.ac.id/public/UEU-Journal-22208-11\\_1964.pdf](https://digilib.esaunggul.ac.id/public/UEU-Journal-22208-11_1964.pdf)
- Irdawati, Reza Aril Ahri, & Nurmiati Muchlis. (2021). Faktor Yang Berhubungan Dengan Perilaku Perawat Tentang Patient Safety Di Ruang Perawatan RSUD H. Padjonga Daeng Ngalle Kabupaten Takalar. *Window of Public Health Journal*, 2(6), 991–999. <https://doi.org/10.33096/woph.v2i6.309>
- Istikhairyah, L., Tonis, M., Yuliana, A. S., & Salim, A. (2023). Pengaruh Pengetahuan dan Sikap Perawat Terhadap Standar Keselamatan Pasien Di Ruang Rawat Inap Rumah Sakit Umum Daerah Arifin Achmad Provinsi Riau. *Jurnal Kesehatan*, 1(4), 602–611.
- Karim, N. H., Rohmah, A. N., & Muhaji. (2024). Hubungan Burnout Tenaga Kesehatan Terhadap Penerapan Keselamatan Pasien Di Instalasi Gawat Darurat RS PKU Muhammadiyah Gamping. *Jurnal Kesehatan Masyarakat*, 1(2), 19–36. <https://jurnal.kolibi.org/index.php/husada/article/view/1374>
- Kementerian Ketenagakerjaan Republik Indonesia. (2022). *Profil Keselamatan dan Kesehatan Kerja Nasional Indonesia Tahun 2022*. Jakarta: Kementerian Ketenagakerjaan.
- Khaulla Miandi, R., & Peristiowati, Y. (2022). Pengaruh Akreditasi Untuk Meningkatkan Mutu Pelayanan dan Keselamatan Pasien di Rumah Sakit (Studi Sistematis Review). *Jurnal Ilmiah Perekam Dan Informasi Kesehatan Imelda (JIPIKI)*, 7(1), 80–87. <https://doi.org/10.52943/jipiki.v7i1.712>
- Larasati, A., & Dhamanti, I. (2021). Studi Literatur: Implementasi Sasaran Keselamatan Pasien di Rumah Sakit di Indonesia. *Media Gizi Kesmas*, 10(1), 138–148. <https://doi.org/10.20473/mgk.v10i1.2021.138-148>
- Marianna, S., Yolanda, W., Zakiyah, & Apriana. (2024). Pengetahuan Perawat Berpengaruh Terhadap Kepatuhan Penerapan Sasaran Keselamatan Pasien Risiko Jatuh Di Ruang Rawat Inap Rumah Sakit Melia. *Media Publikasi Penelitian*, 22(2), 101–114. <https://doi.org/https://doi.org/10.26576/profesi.v22i1.291>
- Maryani, L. (2022). Hubungan antara Kepemimpinan Kepala Ruangan dengan Kinerja Perawat dalam Penerapan Keselamatan Pasien di Ruang Rawat Inap Rumah Sakit. *An Idea Health Journal*, 2(01), 24–31. <https://doi.org/10.53690/ihj.v3i01.71>
- Mulyadi, & Yulia, S. (2022). Penerapan Sasaran Keselamatan Pasien Di Pelayanan Rumah Sakit. *Jurnal 'Aisyiyah Medika*, 7(2), 109–119. <https://doi.org/10.36729/jam.v7i2.858>
- Mustika, I. F., Martutik, Y., Rusnoto, & Supardi. (2021). Hubungan Dukungan Manajemen Keperawatan dengan Mutu Pelayanan Patient Safety di RSUD dr. Loekmonohadi Kudus. *University Research Colloquium 2021 Sekolah Tinggi Ilmu Kesehatan Muhammadiyah Klaten*, June, 777–784. <https://repository.urecol.org/index.php/proceeding/article/view/1477>
- Mutrika, R., & Hutahaean, S. (2022). Penerapan Edukasi Pencegahan Risiko Jatuh Terhadap Peningkatan Pengetahuan Dan Persepsi Pasien Dalam Mencegah Jatuh Di Ruang Rawat Inap Rumah Sakit X. *Jurnal Keperawatan Muhammadiyah*, 7(4), 107–111. <https://doi.org/10.30651/jkm.v7i4.14536>
- Nabilla, N., & Dhamanti, I. (2023). Peran Kepemimpinan dalam Meningkatkan Budaya Keselamatan Pasien di Rumah Sakit (Suatu Kajian Kepustakaan). *Jurnal Kesehatan Komunitas*, 9(3), 471–476. <https://doi.org/10.25311/keskom.Vol9.Iss3.1458>
- Ningsih, N. S., & Endang Marlina. (2020). Pengetahuan Penerapan Keselamatan Pasien (Patient Safety) Pada Petugas Kesehatan. *Jurnal Kesehatan*, 9(1), 59–71. <https://doi.org/10.37048/kesehatan.v9i1.120>
- Paramita, D. A., Arso, S. P., & Kusumawati, A. (2020). Faktor-Faktor yang Berhubungan dengan Motivasi Perawat dalam Pelaporan Insiden Keselamatan Pasien Di Rumah Sakit X Kota Semarang. *JURNAL KESEHATAN MASYARAKAT (e-Journal)*, 8(6), 724–730. <https://doi.org/10.14710/jkm.v8i6.28217>
- Putra, M. S., Fatna, N., Nurlaili, Sriwahyuni, & Lisa, L. T. (2025). Hubungan Pengetahuan

- Perawat dengan Penerapan Patient Safety Rumah Sakit Avicenna Bireuen. *INNOVATIVE: Journal Of Social Science Research*, 5(1), 6027–6033. <https://doi.org/10.31004/innovative.v5i1.16413>
- Rahmat, Nugraha, N. J., & Jauhari, Y. M. (2020). Hubungan Pengetahuan Dengan Sikap Perawat Dalam Pencegahan Pasien Jatuh Di Ruang Rawat Inap Rumah Sakit. *Jurnal Keperawatan 'Aisyiyah*, 7(2), 43–49. <https://doi.org/10.33867/jka.v7i2.213>
- Rahmi, N. Al, Ahri, R. A., & Andayani, E. (2021). Hubungan Pengetahuan, Sikap, Dan Motivasi Perawat dengan Penerapan Patient Safety di Rsud Labuang Baji. *Window of Public Health Journal*, 2(3), 425–433. <https://doi.org/10.33096/woph.v2i3.176>
- Saputra, I. M. D., Hidayat, D., & Santoso, B. (2025). Mixed Methods Exploratory Study: Analisis Penerapan Budaya Keselamatan Pasien. *ProHealth Journal (PHJ)*, 22(2), 96–112. <https://doi.org/10.59802/phj.2025222184>
- Sari, Y., & Bambang. (2023). Hubungan Pengetahuan Dengan Kepatuhan Perawat Dalam Melaksanakan Standar Prosedur Operasional Pencegahan Risiko Jatuh. *Jurnal Of Vocation Health Science*, 2(1), 13–22. <https://doi.org/10.32419/jppni.v8i2.448>
- Suparjo, D., Paramarta, V., & Rulia, R. (2025). Pengaruh Gaya Kepemimpinan, Kerja Tim dan Budaya Keselamatan Pasien terhadap Pencapaian Sasaran Keselamatan Pasien (Patient Safety) di Rumah Sakit Umum Daerah Majalengka. *AKADEMIK: Jurnal Mahasiswa Ekonomi & Bisnis*, 5(2), 660–674. <https://doi.org/10.37481/jmeh.v5i2.1321>
- Syam, N. S., Kurnia, S., & Hastuti, W. (2018). Relationship Between Knowledge and Attitude with Implementation of Patient Safety Targets in RSUD Yogyakarta. *JMMR (Jurnal Medicoeticolegal Dan Manajemen Rumah Sakit)*, 7(3), 205–211. <https://doi.org/10.18196/jmmr.7374>
- T.A, T. D., & Pratiwi, A. P. (2023). Hubungan Pengetahuan Perawat Dengan Penerapan Patient Safety. *Jurnal Ilmiah Kesehatan Media Husada*, 12(1), 50–56. <https://doi.org/10.33475/jikmh.v12i1.326>
- Vaismoradi, M., Tella, S., A. Logan, P., Khakurel, J., & Vizcaya-Moreno, F. (2020). Nurses' Adherence to Patient Safety Principles: A Systematic Review. *International Journal of Environmental Research and Public Health*, 17(6), 2028. <https://doi.org/10.3390/ijerph17062028>
- Widiyanto, I. R., Shaluhayah, Z., & Dwiantoro, L. (2022). Faktor yang Berpengaruh terhadap Kepatuhan Pelaksanaan Tindakan Perawat Klinik 1 dan 2 di Ruang Rawat Inap RSUP dr . Kariadi Semarang. *Jurnal Manajemen Kesehatan Indonesia*, 10(2), 148–155. <https://doi.org/10.14710/jmki.10.2.2022.148-155>
- Wulandari, H., Setyaningsih, Y., & Musthofa, S. B. (2023). Beberapa Aspek Dimensi Budaya Keselamatan Pasien Hubungannya Dengan Budaya Laporan : Studi Kasus Di RSUD Kabupaten Semarang. *Jurnal Manajemen Kesehatan Indonesia*, 11(April), 91–98. <https://doi.org/10.14710/jmki.11.1.2023.91-98>
- Wulandari, S., & Widiastuti, E. (2021). Hubungan Pengetahuan Dan Sikap Perawat Tentang Kewaspadaan Obat Dan Pengurangan Resiko Jatuh Dengan Pelaksanaan Keselamatan Pasien Di Ruang Ranap RS Bhayangkara Tk.I R. Said Sukanto Jakarta. *Jurnal Keperawatan Terpadu*, 2(1), 22–28.