

# The Factors Affecting Patient Safety Incidents (PSIs) Reporting at Indonesian Hospitals: A Literature Review

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## ABSTRACT

Underreporting of PSIs hampers efforts to improve service quality and patient safety (PS), as unreported incidents cannot be analyzed for future learning or prevention. This study employed a literature review method by searching online databases, including PubMed, Scopus, and Garuda Kemdikbud. The inclusion criteria were original articles published within the last five years, available in full text, open access, and written in English or Indonesian. A total of 33 articles met these criteria. The synthesis identified three main factors influencing PSI reporting in Indonesian hospitals: individual, organizational, and external factors. Individual factors include knowledge, attitudes and motivation, perceptions and fears, and demographic characteristics. Organizational factors consist of patient safety culture (PSC), leadership and management support, feedback mechanisms, reporting systems, and socialization and training. External factors are mainly related to government support and national policies.

Keywords: Patient Safety Incidents, Underreporting, Hospitals, Indonesia.

## Introduction

The basic principle “First, do no harm” emphasizes that no individual should be harmed by medical care (WHO, 2023). However, over three million people die each year as a result of unsafe healthcare practices (Slawomirski & Klazinga, 2020). It is estimated that over 50% of harmful events in healthcare—equivalent to 1 in every 20 patients—are preventable (Panagioti et al., 2019). In low- and middle-income countries, up to 4% of patients lose their lives due to unsafe care (Slawomirski & Klazinga, 2020). This positions PS as a crucial measure of healthcare quality, especially within hospital settings.

A PSI is any event that involves, or could involve, unnecessary harm to patients, based on the WHO (Pramesona et al., 2023). To minimize these incidents, hospitals must apply PS standards by reporting, analyzing, and taking corrective action on each event (Pramesona et al., 2023). Incident reporting systems serve as a

monitoring mechanism aimed at tracking, preventing, and minimizing PSIs (6). Nevertheless, studies indicate that reporting of PSIs is still inadequate in many countries. In Scotland, physicians tend to report only serious incidents, while nurses and pharmacists are more likely to report near misses (Samsiah et al., 2016). In Iran, despite the use of anonymous reporting, approximately 45% of nurses remain reluctant to file reports (Fathi et al., 2017). Research in Saudi Arabia showed that 79% of incidents went unreported due to difficulties in the reporting process. In Malaysia, the incidents reported were significantly fewer than those that actually occurred, with medication errors documented in only 28.9%–50% of cases (Samsiah et al., 2016). A study across six ASEAN countries also revealed that nearly 50% of Southeast Asian nations lack sufficient data on medical errors, highlighting weaknesses in reporting systems (Salmasi et al., 2015).

A similar issue exists in Indonesia. In 2016, just 668 incidents were reported out of 1,227 accredited hospitals, a stark contrast to Taiwan, which recorded 50,000 incident reports annually (Dhamanti et al., 2020). Moreover, between 2015 and 2019, only 12% of PSIs were reported at the national level (Pramesona et al., 2023). Other studies found that reporting in Indonesia is often delayed (Tristantia, 2018). Research in primary healthcare centers in Maluku Province further identified psychological factors (such as perception, attitude, and motivation) and organizational factors (leadership) as contributors to underreporting (Manuhutu et al., 2024). This lack of reporting ultimately endangers PS and contributes to higher mortality rates in healthcare facilities (Gqaleni & Bhengu, 2020; Pramesona et al., 2023).

Inadequate reporting of PSIs also hampers efforts to improve healthcare quality (Dhamanti et al., 2022). Without sufficient reporting, incidents cannot be analyzed for learning and future prevention. This undermines the creation of a robust PSC and reduces opportunities to improve PS (Manuhutu et al., 2024). Therefore, identifying obstacles to incident reporting and carrying out systematic reviews is crucial to gaining a clearer understanding of the main factors influencing PSI reporting in Indonesian hospitals.

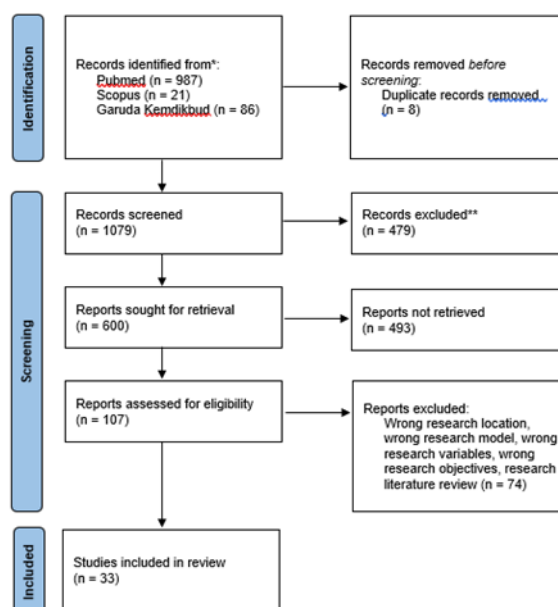
## **Methodology**

This study used a literature review method by searching online databases, namely PubMed, Scopus, and Garuda Kemdikbud. The selected studies were written in either English or Bahasa Indonesia. All publications obtained by the researchers first underwent a duplication check and an initial screening based on title and abstract. Subsequently, inclusion criteria were applied, consisting of articles published within the last five years (April 1, 2019 to March 31, 2025), classified as original articles, full text, *and* open access.

The remaining studies were then reviewed in greater depth to ensure alignment with the research objective, namely to identify factors or determinants influencing incident reporting in hospitals. The scope was limited to studies conducted in Indonesian hospitals with quantitative, qualitative, or mixed-method designs. Articles not meeting these criteria were excluded. At the final stage, a number of eligible studies were included in the data synthesis.

**TABEL 1. LITERATURE SEARCH STRATEGY**

Databases	Keywords	Additional Search Criteria	Counts
Pubmed	((incidents report patient safety) OR (incident reporting)) AND (hospital) AND (indonesia)	Free Full text, Last 5 years, English, Indonesian	540
Scopus	( TITLE-ABS-KEY ( hospital AND incident AND reporting ) OR TITLE-ABS-KEY ( patient AND safety AND incident AND report ) AND TITLE-ABS-KEY ( hospital ) AND TITLE-ABS-KEY ( indonesia ) ) AND PUBYEAR > 2018 AND PUBYEAR < 2026 AND ( LIMIT-TO ( LANGUAGE , "English" ) )	Last 5 years, English, Open access	21
Garuda Kemdikbud	"laporan insiden", "laporan insiden keselamatan pasien", "pelaporan insiden", "hospital incident reporting", "patient safety incident report", "patient safety incident reporting"	Open access, Last 5 years, English, Indonesian	86



**Figure 1. PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow diagram of search and selection process**

In this integrative literature review, the article selection process was conducted systematically using a flow diagram in accordance with the PRISMA guidelines, as presented in **Figure 1**. From this selection process, 33 articles met the inclusion criteria. The characteristics of these articles are presented in **Table 2**. Several determinant factors influencing PSI reporting in Indonesian hospitals were identified. In general, these factors can be categorized into five major groups: individual factors, organizational and leadership factors, PSC factors, reporting system factors, and external factors (government support and national policies).

**TABEL 2. STUDY CHARACTERISTIC**

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
1	Jenita et al., 2019	Analysis of Factors Associated with Patient Safety Incident Reporting in Nurses	Quantitative study with a cross-sectional design	Descriptive statistics with logistic regression analysis	Structured questionnaires and observations	A total of 121 nurses were recruited through cluster random sampling.	Regional Public Hospital Prof. DR. W. Z. Johannes, Kupang	There was a significant relationship between rewards, training, and feedback with the reporting of PSIs. However, no significant relationship was found between knowledge and motivation with PSI reporting.
2	Dhamanti et al., 2019	The Role of Governments in the Implementation of Patient Safety and Patient Safety Incident Reporting in Indonesia : A Qualitative Study	Qualitative study	Thematic analysis using NVivo software	Semi-structured interviews	A total of 16 participants representing 7 organizations	<ul style="list-style-type: none"> <li>- East Java Provincial Health Office (Dinkes Prov. Jawa Timur)</li> <li>- District/City Health Office A (Dinkes Kab/Kota A)</li> <li>- City Health Office B (Dinkes Kota B)</li> <li>- District Health Office C (Dinkes Kab. C)</li> <li>- District Hospital A (RSU Kab. A)</li> <li>- City Hospital B (RSU Kota B)</li> <li>- District Hospital C (RSU Kab. C)</li> </ul>	Multiple issues at the macro, meso, and micro levels stem from inadequate government monitoring and evaluation of PS programs and incident reporting in Indonesia. District and provincial health offices are likewise not engaged in incident reporting, and government support for hospitals remains inadequate.
3	Kusumawati et al., 2019	Patient safety culture and nurses' attitude on incident reporting in	Quantitative study with a cross-sectional	Descriptive statistics, bivariate analysis, and linear regression	Validated structured questionnaires	Sampling was conducted using cluster sampling in three district	Three district hospitals (RSU) in Yogyakarta	There is a strong and significant correlation between PSC and nurses' attitudes toward incident reporting. In addition, job position, PSC, nursing level,

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
		Indonesia	design			hospitals (RSU) in Yogyakarta, followed by proportional stratified random sampling of 400 nurses, consisting of head, primary or team leader, and staff nurses.		length of experience, and age collectively correlate with nurses' attitudes toward reporting incidents.
4	Octarini et al., 2019	The Relationship Between Nurses' Knowledge and Unit Head Supervision Function with Nurses' Motivation in Reporting Patient Safety Incidents	Quantitative study with a cross-sectional design	Univariate and Pearson correlation analysis	Validated structured questionnaires	A proportional random sampling method was used, including 76 staff nurses from the inpatient wards	Inpatient wards at Mangusada Regional Hospital (RSD Mangusada)	There is a significant association between nurses' knowledge and the supervisory function of unit heads with nurses' motivation to report PSIs. The correlation coefficient also indicates a very strong and positive relationship, meaning that improved nurse knowledge and stronger supervision by unit heads lead to higher motivation among nurses to report PSIs.
5	Paramita et al., 2020	Factors Associated with Nurses' Motivation in Reporting Patient Safety Incidents at Hospital X, Semarang City	Quantitative study with a cross-sectional design	Univariate and bivariate analysis	Validated structured questionnaires	A sample of 65 inpatient nurses was chosen as respondent.	Inpatient wards at Hospital X, Semarang City	Univariate analysis showed that the variables Responsibility, Recognition, Policy, Work Conditions, and Incentives were categorized as poor, whereas Achievement, Interpersonal Relationships, and Supervision were categorized as good. Bivariate analysis indicated that the factors significantly associated with nurses' motivation in reporting PSIs were Responsibility, Recognition, Policy, and

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								Work Conditions. The variables Achievement, Interpersonal Relationships, Supervision, and Incentives were not significantly associated with nurses' motivation in reporting PSIs.
6	Patmawati & Djano, 2020	Analysis of Patient Safety Incident Reporting Culture Among Nurses at Sawerigading Regional General Hospital (RSUD Sawerigading), Palopo	Quantitative study with a cross-sectional design	Descriptive statistical analysis	IRCQ (Incident Reporting Culture Questionnaire)	A purposive sampling approach was used to include 63 nurses in the study	Nurses at Sawerigading Regional Hospital (RSUD Sawerigading), Palopo	The study revealed that of the 63 respondents, 38 nurses (60.3%) expressed a negative perception of the incident reporting culture, while 25 nurses (39.7%) expressed a positive one. Subscale analysis showed that the most negatively rated factor was the 'collegial climate related to discomfort and fear of punishment,' reported by 47 respondents (74.6%).
7	Wanda et al., 2020	Analysis of Factors Affecting Patient Safety Incident Reporting Among Nurses	Quantitative study with a cross-sectional design	Descriptive statistics, bivariate analysis, and logistic regression analysis	Validated structured questionnaires and observations	A total of 143 nurses participated in the study	Nurses at Prof. Dr. W. Z. Johannes Regional Hospital (RSUD Prof. Dr. W. Z. Johannes) in Kupang	The findings showed that perception had a significant effect on PSI reporting, and leadership also had a significant impact.

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
8	Dhamanti et al., 2020	Practical and Cultural Barriers to Reporting Incidents Among Health Workers in Indonesian Public Hospitals	Mixed methods with convergent parrarel design	Quantitative : Descriptive statistics and chi-square analysis. Qualitative : Thematic analysis using NVivo software	Quantitative: validated structured questionnaires, Qualitative : interviews and direct observations.	A survey was conducted with 1,121 healthcare workers, and interviews were carried out with 27 managerial staff from the selected hospitals	Each unit in all district hospitals (RSU) included in the sample throughout Indonesia	Quantitative analysis revealed significant differences between reporters and non-reporters in terms of profession, work unit, and participation in quality and PS training. Regarding practical barriers, the two groups differed significantly in the following responses: 'not knowing how to report,' 'not knowing where to report,' and 'lack of feedback.' For cultural barriers, a significant difference emerged only in the response 'not wanting to create conflict.'  In the qualitative findings, most interviewees indicated that limited knowledge and inadequate socialization or training served as practical barriers to incident reporting. Additionally, many informants identified reluctance and fear of reporting as key cultural obstacles.
9	Harsul et al., 2020	The relationship between nurse self-efficacy and the culture of patient safety incident reporting in a district general hospital, Indonesia	Quantitative study with a cross-sectional design	Descriptive statistics and chi-square analysis	Validated structured questionnaires	The study involved 100 nurses from the inpatient units of a Regional General Hospital in South Sulawesi Province, Indonesia	South Sulawesi Provincial Regional Hospital (RSUD Prov. Sulawesi Selatan)	Self-efficacy was not found to have a statistically significant association with the culture of PSI reporting

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10	W. A. Pratiwi & Aini, 2021	The Effect of Patient Safety Culture and Leader Coaching Behaviour Nursing Managers on Patient Safety Incident Reporting at Panembahan Senopati Hospital, Yogyakarta	Quantitative study with a cross-sectional design	Descriptive statistics and multiple linear regression analysis	Validated structured questionnaires	The study included a sample of 134 nurses working in the inpatient wards	Panembahan Senopati Hospital, Yogyakarta	PSC (PSC) and Nursing Manager Leader Coaching Behavior (LCB) both have a significant impact on PSI reporting, with a determination coefficient of R = 0.582 and an F-value of 88.545 (p < 0.05). Partially, the effect of PSC on PSI reporting is indicated by a t-value of 2.110, while the effect of Nursing Manager LCB on PSI reporting shows a t-value of 11.868. These findings indicate that both PSC and LCB significantly contribute to the improvement of PSI reporting.
11	Lestari et al., 2021	Analysis of Factors Contributing to Low Patient Safety Incident Reporting in Inpatient Wards at Mitra Medika General Hospital, Bandar Klippa, 2021	Quantitative study with a cross-sectional design	Univariate, bivariate, and multivariate statistical analysis	Structured questionnaires	A total sampling method was used, including 56 nurses as the study sample.	Mitra Medika General Hospital (RSU Mitra Medika), Bandar Klippa, North Sumatra, Indonesia	The variables reporting perception (p = 0.004), intra-unit collaboration (p = 0.012), reporting frequency (p = 0.028), handover (p = 0.025), and staffing (p = 0.046) were found to influence low PSI reporting. The most influential factor was reporting perception, which had the highest positive coefficient value of 0.534.
12	Nashifah & Adriansyah, 2021	Analysis of Factors Associated with the Patient Safety Incident Reporting Culture Among Nurses	Qualitative study	Qualitative analysis (fishbone diagram and USG method)	Interviews, observations, and secondary data	The study participants included staff members responsible for reporting PSIs, along with one key informant, the Chair of the	Ende Regional Hospital (RSUD Ende)	The implementation of PSI reporting has not been fully optimized, as indicated by various problems in the reporting process. Some of the obstacles identified include errors in filling out the type of incident and determining the risk level (risk grading), as well as the tendency for reporting to be done more frequently by coordinators rather than by all involved healthcare

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
						Hospital PS Subcommittee		personnel. Based on problem diagnosis using a fishbone diagram, four main root causes were identified: (1) lack of staff knowledge regarding incident reporting, (2) fear of being blamed after reporting, (3) low awareness of the importance of reporting incidents, and (4) lack of understanding of the correct reporting flow.
13	Patmawati et al., 2022	Analysis of Factors Associated with the Patient Safety Incident Reporting Culture Among Nurses	Quantitative study with a cross-sectional design	Descriptive statistics and chi-square analysis	Structured questionnaires	The study included a purposive sample of 94 nurses	Ende Regional Hospital (RSUD Ende)	The analysis results showed that the variable length of service had a p-value of 0.0872 ( $p \geq 0.05$ ), indicating no significant relationship between length of service and the PSI reporting culture. In contrast, the variables communication and teamwork showed significant relationships with the incident reporting culture, with p-values of 0.035 and $\leq 0.032$ , respectively.
14	Adnyani et al., 2022	Evaluation of Patient Safety Incident Reporting at Karangasem Regional General Hospital	Qualitative study	Thematic qualitative analysis with triangulation	In-depth interviews and document review	In-depth interviews were carried out with 18 participants	Karangasem Regional Hospital (RSUD Karangasem)	RSUD Karangasem already has guidelines for PSI reporting; however, staff compliance in reporting PSIs remains low. The internal reporting flow has been implemented according to the guidelines, but several problems still exist. Factors hindering PSI reporting include lack of knowledge and the practice of reporting incidents verbally via telephone, while certain factors act as facilitators for incident reporting.

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15	Arisandhi et al., 2022	Factors Associated with Patient Safety Incident Reporting by Nurses at Permata Hati Hospital, Bengkalis Regency	Quantitative study with a cross-sectional design			The study employed total sampling, including all 127 nurses as the study sample.	Permata Hati Hospital, Bengkalis Regency	The study results showed that 53.5% of PSI reporting was conducted properly. Based on bivariate analysis, a relationship was found between nurses' attitude, training, and management commitment with PSI reporting. Further multivariate analysis using logistic regression indicated that, of these three variables, two had a significant relationship with PSI reporting: nurses' attitude and leadership . Therefore, it can be concluded that the dominant factor associated with patient safety incident reporting is organizational, particularly management commitment.
16	Dhamanti et al., 2022	Factors contributing to under-reporting of patient safety incidents in Indonesia : leaders' perspectives	Qualitative study	Deductive thematic analysis using NVivo	Semi-structured interviews	A total of 25 participants were recruited across national, provincial, and district levels. At the national level, participants represented the Ministry of Health (n=2), the National Hospital Patient Safety Committee (n=2), the Hospital Accreditation Commission (n=2),	9 organizations in Indonesia : government departments, independent agencies, and general hospitals.	The main factors contributing to low PSI reporting can be categorized into two groups: hospital-related factors and external factors (government or independent agencies). Hospital-related factors include lack of understanding, knowledge, and sense of responsibility regarding reporting; weak leadership and institutional culture in supporting incident reporting; and the perception that reporting is an additional burden. External factors include lack of feedback and training, absence of confidentiality mechanisms within the system, unavailability of policies protecting

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
						and the Indonesian Hospital Association (n=3). At the provincial level, participants were drawn from the Provincial Health Office (n=2). At the district level, participants included representatives from District Health Offices in three districts (n=6) and regional public hospitals (RSUD) in the same districts (n=9).		reporting hospitals from sanctions, and insufficient leadership at the external level.
17	Arsani et al., 2023	Analysis Dimension of Healthy Work Environment for Successful Patient Safety Incident Reporting : A Cross Sectional Study	Quantitative study with a cross-sectional design	Univariate, bivariate, and multivariate statistical analysis	Validated structured questionnaires	The study involved 151 nurses employed in the inpatient wards	Panembahan Senopati Regional Hospital (RSUD Panembahan Senopati), Bantul, Yogyakarta	There is a significant association between communication, collaboration, decision-making, staff suitability, recognition, and leadership with PSI reporting, with each variable showing a p-value of 0.001 (p < 0.05). Recognition emerged as the strongest predictor. Recognition promotes psychological growth, helping individuals maintain a positive mindset to carry out tasks, resolve issues, face challenges, and

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
								recover from difficult circumstances. Thus, individual attitudes alone are not enough to determine incident reporting; they must be reinforced by the influence of key figures in the environment who encourage reporting when incidents occur.
18	Ekaningtyas & Salim, 2023	Factors Associated with Patient Safety Incident Reporting by Nurses at Panembahan Senopati Regional Hospital, Bantul, Yogyakarta	Quantitative study with a cross-sectional design	Univariate analysis, Spearman rank correlation, and logistic regression analysis	Structured questionnaires	The study involved 189 nurses who were selected using proportionate stratified random sampling	Panembahan Senopati Regional Hospital (RSUD Panembahan Senopati), Bantul, Yogyakarta	Factors linked to the frequency of PSI reporting at Panembahan Senopati Regional Hospital (RSUD Panembahan Senopati), Bantul, include non-punitive responses to errors, open communication, error feedback, and supervisors' expectations and support for PS. Addressing these factors can help the hospital strengthen its PSI reporting culture.
19	Lombongkaehe et al., 2023	Analysis of Patient Safety Incident Reporting in the Inpatient Wards of Siloam Hospitals, Manado, Indonesia	Qualitative study	Qualitative data analysis (data reduction, verification, and conclusion drawing)	In-depth interviews and observations	8 informants were included: one hospital director, one Quality and Risk Department Head, one Head of the ICT (Information, Communication, and Technology) Department, one Head of the Nursing Division, two Head	Siloam Hospitals, Manado, North Sulawesi, Indonesia	PSI reporting in the hospital's inpatient units is carried out through the Q-Pulse application. Incidents must be entered into the Q-Pulse incident reporting form within 24 hours of occurrence or identification of the risk. Barriers to incident reporting include slow system performance when accessing Q-Pulse, staff being occupied with primary tasks, and fear of reporting due to concerns about being blamed. Measures to address these issues include improving the internet network and installing additional signal or Wi-Fi

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
						Nurses from the 5th and 2nd floors, and two nurses responsible for the inpatient units.		boosters, which will be coordinated with the Siloam Head Office.
20	Ana et al., 2023	Patient Safety Incident Reporting Culture Integrated Through the Hospital Management Information System (SIMRS)	Qualitative case study using the ADDIE approach	Qualitative problem analysis using fishbone diagram	Interviews, observations, surveys, and focus group discussions	Interviews were conducted with three unit heads (6th, 7th, and 8th floors), the Head of Nursing Section, the Nursing Committee, and the Quality and PS Committee.	Khidmat Sehat Afiat Regional Hospital (RSUD Khidmat Sehat Afiat), Depok City, West Java, Indonesia	PSI reporting is influenced by various factors, including: (1) Man: Not all PSIs are reported, and staff are not fully aware of how to report incidents using the Hospital Management Information System (SIMRS). (2) Material: Work instructions are available, such as the manual reporting flow SOP and reporting SOP; however, an SOP for reporting through SIMRS has not been established. (3) Method: An incident reporting flow integrated with SIMRS is not yet available. (4) Machine: The reporting application via SIMRS has not been implemented.
21	Irwan et al., 2023	Analysis of patient safety incident reporting system by health officials at Prof. Dr. Muhammad Ildrem psychiatric hospital Medan.	Quantitative study with a cross-sectional design	Univariate, bivariate, and multivariate statistical analysis	Structured questionnaires	The study population comprised all healthcare personnel, including 20 doctors and 162 nurses, all of whom were included in the sample.	RSJ Prof. Dr. Muhammad Ildrem, a mental health hospital in Medan, Indonesia	Knowledge, feedback, and organizational/management factors were found to influence PSI reporting at Prof. Dr. Muhammad Ildrem Mental Hospital, Medan. However, fear, reporting flow/process, and work environment factors did not have a significant effect on PSI reporting at the hospital.

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
22	Yulia & Maryana, 2023	Factors Associated with Low Patient Safety Incident Reporting in Inpatient Wards	Quantitative study with a cross-sectional design	Univariate and inferential bivariate statistical analysis	Validated structured questionnaires	The study included a total sample of 51 respondents, selected through total sampling	Inpatient Wards at Medika Stannia Hospital, Sungailiat, Bangka Belitung Islands	There is a significant relationship between knowledge, supervision, and PSC with the low rate of PSI reporting in the inpatient wards of Medika Stannia Hospital, Sungailiat, in 2023.
23	Manurung et al., 2023	The Effect of Organizational Culture and Unit Heads' Transformational Leadership Style on Patient Safety Incident Reporting Culture with Self-Efficacy as an Intervening Variable among Healthcare Personnel at a Type C Private Hospital in Ciputat	Quantitative study with a cross-sectional design	Descriptive statistics and path analysis	Structured questionnaires	The study included a sample of 110 healthcare personnel.	Type C Private Hospital in Ciputat, South Tangerang	Both jointly and individually, organizational culture and the transformational leadership style of unit heads have a direct, positive, and significant influence on self-efficacy and on the culture of PSI reporting. Likewise, both jointly and individually, the transformational leadership style of unit heads and self-efficacy also exert a direct, positive, and significant impact on the reporting culture. These results show that self-efficacy serves as a positive mediating factor between organizational culture and transformational leadership in strengthening the culture of PSI reporting. Strengthening self-efficacy is essential, as it enhances the effectiveness of organizational culture implementation and the transformational leadership of unit heads as change agents, ultimately increasing healthcare workers' participation in reporting PSIs.
24	Wijaya et al., 2023	The Relationship Between Group and	Quantitative study with a	Descriptive cross-tabulation analysis	Structured questionnaires	The study sample comprised 60 units	A. Yani Islamic Hospital, Surabaya, Indonesia	The findings show that group and organizational factors—such as

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
		Organizational Factors on Misbehavior Performance in the Implementation of Patient Safety Incident Reporting	cross-sectional design			with a total of 174 individuals, selected through Total Population Sampling. The inclusion criteria were: (1) unit heads or individuals responsible for the unit, and (2) staff members with more than five years of work experience.		cohesiveness, leadership, a constructive organizational culture, organizational climate, and control systems—are linked to the ability to internalize organizational values and norms, beliefs about deviant behavior, and intentions to engage in such behavior. Mediating factors, including normative force, instrumental force, and behavioral intention, were found to correlate with deviant behavior in PSI reporting. Group and organizational factors influence these mediating elements, which are subsequently associated with deviant behaviors in reporting PSIs.
25	Karmila et al., 2023	The Relationship Between Patient Safety Culture and Patient Safety Incident Reporting by Nurses in the Inpatient Wards of Pelamonia Class II Hospital, Makassar	Quantitative study with a cross-sectional design	Univariate and bivariate analysis	Structured questionnaires and structured observations	A total of 83 inpatient nurses were involved in the study through total sampling	Pelamonia Class II Military Hospital, Makassar, Indonesia	PSC is significantly associated with PSI reporting. Supervisor/management expectations are associated with incident reporting. Organizational learning – continuous improvement is associated with incident reporting. Intra-unit collaboration is associated with incident reporting . Feedback and communication are associated with incident reporting. Non-punitive response is associated with incident reporting. Overall, the variable PSC is significantly related to PSI reporting.

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
26	Pramesona et al., 2023	A qualitative study of the reasons for low patient safety incident reporting among Indonesian nurses	Qualitative study	Thematic qualitative analysis with triangulation	Semi-structured interviews	The sample included 15 clinical nurses who were purposively chosen based on their availability, willingness to participate, and direct involvement in patient care across the inpatient wards, outpatient clinics, operating rooms, and emergency units of a general hospital	Referral General Hospital in Lampung, Indonesia	The study found that limited understanding of incident reporting, a culture of blame, fear of legal repercussions, insufficient socialization and training, inadequate facilities, lack of feedback, and the absence of a reward-and-punishment system contributed to the low rate of PSI reporting. To strengthen incident reporting—especially among nurses—the PS committee and hospital leadership should treat these issues as priority challenges. Healthcare organizations need to adopt effective strategies and establish appropriate regulations to build and support a strong safety culture within hospitals.
27	A. A. Pratiwi et al., 2024	The factors related to patient safety incident reporting in inpatient in RSD Idaman Banjarbaru City	Quantitative study with a cross-sectional design	Descriptive statistics and chi-square analysis	Validated structured questionnaires	The sample included 128 nurses working in the inpatient wards	Idaman Regional Hospital, Banjarbaru City, South Kalimantan, Indonesia	The study results indicate that there is no significant relationship between gender, education, length of service, and leadership with PSI reporting at Idaman Hospital, Banjarbaru. However, there is a significant relationship between perception and motivation with PSI reporting in the inpatient wards of RSD Idaman. Perception and motivation can be enhanced through peer support by avoiding punitive measures for nurses and eliminating a blame culture. Factors not significantly associated, such as gender, education,

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
								length of service, and leadership, may be influenced by other elements, including lack of knowledge, training, and recognition.
28	Aisyiah et al., 2024	The Role of Hospital Management Support in the Implementation of Patient Safety Incident Reporting in Hospitals	A mixed-methods approach, combining quantitative and qualitative methods, was employed using a sequential explanatory design	Quantitative : Descriptive statistical analysis. Qualitative : Thematic analysis with data triangulation	Quantitative: validated structured questionnaires, Qualitative : in-depth interviews and document review.	A quantitative sample of 100 nurses was selected using proportional random sampling, and a qualitative sample of 5 nurses with prior experience in incident reporting was drawn from units that routinely report Key Performance Indicators.	Hospital X, Indonesia	The implementation of the PSI reporting system at Hospital X has not been optimal, despite using a mobile- and web-based application (SIRANCAK). There was a significant decline in the number of reported incidents, from 8,421 in 2021 to 1,882 in 2022 and 998 in 2023. Major barriers to reporting include lack of management support, weak team collaboration, and slow follow-up processes, particularly for simple investigations and root cause analyses (RCA), which often take more than 45 days. In 2023, only a small portion of incidents were fully investigated, and RCA completion was very limited, indicating the need for improvements in management and reporting processes to enhance the effectiveness of the PSI reporting system.
29	Listiowati et al., 2024	Patient Safety Incident Reporting Challenges in Indonesian Private Hospitals	Qualitative study	Thematic qualitative analysis	Semi-structured online focus group discussions	The study sample also included 34 members of the Quality and PS Improvement (PMKP) teams from	Private hospitals in Indonesia	The study explored challenges in PSI reporting across six areas: the reporting environment, reporting rules and content, analysis and investigation, governance, actions and learning, and patient and family involvement. The primary obstacles

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						22 private hospitals in Indonesia.		arose from the reporting environment, including difficulties in submitting reports, limited knowledge, insufficient time for analysis, fear of making mistakes during reporting, and inadequate support from management. Various challenges were identified within each component of PSIs. Creating a positive reporting environment requires a multifaceted approach, including enhancing hospital leadership commitment and implementing clear policies and procedures.
30	Amalia, 2024	Factors Contributing to Low Patient Safety Incident Reporting	Quantitative study with a cross-sectional design	Descriptive statistics and chi-square analysis	Structured questionnaires	The sample consisted of 102 nurses in the inpatient wards.	Dr. Tadjuddin Chalid Central General Hospital, Makassar, Indonesia	The study results indicated no significant relationship between knowledge and low PSI reporting, which was attributed to many nurses not knowing how to report incidents and fearing blame. Additionally, there was no significant relationship between rewards and low incident reporting because the hospital had not implemented a reward system. However, a significant relationship was found between motivation and low PSI reporting, indicating that nurses had a strong motivation to report PSIs.
31	Saefulmilah et al., 2024	Improving Patient Safety Quality Through Digitalization of	Quality improvement study using the PDCA	Descriptive statistical analysis and qualitative descriptive analysis	Questionnaire survey, electronic incident	45 staff members at Goenawan Pulmonary Hospital	Goenawan Partowidigdo Pulmonary Hospital, Cisarua, West Java, Indonesia	The perception of staff who did not report PSIs was influenced by fear of disciplinary action, lack of reporter anonymity, and insufficient confidentiality guarantees.

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
		Patient Safety Incident Reporting	(Plan-Do-Check-Act) cycle		reporting data, and semi-structured interviews			Based on these findings, an intervention plan was developed to enhance PSI reporting through digital media. The results of the intervention showed an increase in reporting, reaching 34 reports during a one-month trial of digitalized PSI reporting. In conclusion, this intervention proved effective within a single PDCA cycle. To sustain and improve the reporting culture, regular socialization, monev of the SOP for PSI reporting are necessary to enhance service quality focused on PS.
32	Alfiyyah & Modjo, 2024	Analysis of Healthcare Staff Perceptions at RSPG Cisarua Bogor Regarding Non-Reporting of Patient Safety Incidents	Metode mixed-method sequential explanatory	Quantitative : Descriptive statistical analysis. Qualitative : Thematic qualitative analysis	Quantitative: Structured questionnaires developed by NIHR Imperial Patient Safety Translational Research Centre, Qualitative : in-depth interviews.	A quantitative survey was conducted with 45 respondents who provided direct patient care. In-depth interviews were conducted with 8 staff members.	RSPG Cisarua, Bogor, West Java	The study results indicate that the main reasons healthcare workers did not report PSIs (PSIs) were fear of disciplinary action, lack of anonymity and confidentiality for the reporter, and the lengthy reporting process due to the continued use of paper forms. In addition, staff felt that the anonymity provided within the quality committee team was insufficient during incident evaluations.

No	Authors, Years	Title	Study Method	Data Analysis	Data Collection Method	Population and sample study	Location	Results
33	Wardhana et al., 2024	Analysis of Patient Safety Culture in the Implementation of Patient Safety Incident Reporting as an Effort to Improve the Quality of Care in the Inpatient Unit of Hospital X.	Qualitative study	Qualitative analysis (fishbone diagram and USG method)	In-depth interviews, observations, and comparisons with ideal conditions based on latest regulations	A sample consisting of representatives from management, the PS team, and staff working in the inpatient unit.	Hospital X, Indonesia.	The study revealed several problems in PSI reporting, such as fear of reporting, poor understanding of incident categories, and limited staffing within the safety culture team, additional workload for reporters, divided team focus, and the perception that complaints related to incident causes are not followed up. Based on the Urgency, Seriousness, and Growth (USG) method, the main issue is the perception among staff that follow-up on complaints is not carried out. Therefore, Hospital X is recommended to establish a PSI Reporting System (SIPENKES) that clearly shows the follow-up process on its main page, enabling staff to see the feedback provided and stay motivated to report PSIs.

## Result and Discussion

The determinants of PSI reporting in Indonesian hospitals, as identified from the review of the 33 articles, include:

**TABLE 3. FACTORS INFLUENCING THE REPORTING OF PSIs IN HOSPITALS**

No	Factors	Scope and Findings	Authors	Counts (n=33)
1	Individual	<p>Knowledge</p> <ul style="list-style-type: none"> <li>- Lack of understanding of the types of PSIs</li> <li>- Reporting is carried out verbally via telephone</li> <li>- Good knowledge can motivate staff to report PSIs</li> <li>- Limited knowledge about the procedures for reporting PSIs</li> <li>- Uncertainty about the appropriate place or channel for reporting PSIs</li> <li>- Limited understanding of the reporting flow</li> <li>- Good decision-making skills in reporting incidents</li> </ul>	(Adnyani et al., 2022; Alfiyah & Modjo, 2024; Ana et al., 2023; Arsani et al., 2023; Dhamanti et al., 2020, 2022; Irwan et al., 2023; Listiowati et al., 2024; Nashifah & Adriansyah, 2021; Octarini et al., 2019; Pramesona et al., 2023; Wardhana et al., 2024; Yulia & Maryana, 2023)	13
		<p>Attitude and Motivation</p> <ul style="list-style-type: none"> <li>- Sense of responsibility for the work performed and improvements for patients</li> <li>- High motivation enhances staff performance</li> <li>- Support from head nurses and colleagues to report PSIs</li> <li>- Low awareness of reporting incidents</li> <li>- Nurses' attitudes toward PSI reporting</li> <li>- Self-efficacy or individual confidence to report PSIs</li> <li>- Intention to engage in deviant behavior</li> <li>- Normative force</li> </ul>	(Adnyani et al., 2022; Amalia, 2024; Arisandhi et al., 2022; Dhamanti et al., 2022; Kusumawati et al., 2019; Manurung et al., 2023; Nashifah & Adriansyah, 2021; Paramita et al., 2020; A. A. Pratiwi et al., 2024; Wijaya et al., 2023)	10
		<p>Perception and Fear</p> <ul style="list-style-type: none"> <li>- Fear of receiving punishment</li> <li>- Fear of being held responsible</li> <li>- Fear that PSIs will be openly discussed in a public forum</li> <li>- Fear of conflict with other colleagues</li> <li>- Employees' perceptions of PSI reporting</li> <li>- Perception that PSI reporting is an additional burden</li> <li>- Belief in deviant behavior</li> <li>- Instrumental force</li> </ul>	(Alfiyah & Modjo, 2024; Dhamanti et al., 2020, 2022; Lestari et al., 2021; Listiowati et al., 2024; Lombongkaehe et al., 2023; Nashifah & Adriansyah, 2021; Pramesona et al., 2023; A. A. Pratiwi et al., 2024; Saefulmilah et al., 2024; Wanda et al., 2020; Wardhana et al., 2024; Wijaya et al., 2023)	13
		<p>Demographics</p> <ul style="list-style-type: none"> <li>- Age</li> <li>- Length of service (years of experience)</li> <li>- Job level</li> <li>- Job position</li> <li>- Profession</li> <li>- Work unit</li> <li>- Involvement in training related to quality and PS</li> </ul>	(Dhamanti et al., 2020; Harsul et al., 2020; Kusumawati et al., 2019)	3

No	Factors	Scope and Findings	Authors	Counts (n=33)
2	Organizational Factors	PSC <ul style="list-style-type: none"> <li>- No-blame policy</li> <li>- Open communication</li> <li>- Punitive work climate</li> <li>- Blaming culture</li> <li>- Teamwork, both within and across units</li> <li>- Frequency of PSIs reporting</li> <li>- Effective communication</li> <li>- Organizational learning – continuous improvement through PSIs reporting</li> <li>- Application of learning from errors</li> <li>- Institutional/organizational culture in supporting incident reporting</li> <li>- Constructive organizational culture</li> <li>- Internalization of organizational values and norms</li> </ul>	(Aisyiah et al., 2024; Arsani et al., 2023; Dhamanti et al., 2022; Ekaningtyas & Salim, 2023; Harsul et al., 2020; Karmila et al., 2023; Kusumawati et al., 2019a; Lestari et al., 2021; Manurung et al., 2023; Patmawati et al., 2022; Patmawati & Djano, 2020; Pramesona et al., 2023; W. A. Pratiwi & Aini, 2021; Wijaya et al., 2023; Yulia & Maryana, 2023)	15
	Leadership and Management Support	<ul style="list-style-type: none"> <li>- Supervision by superiors</li> <li>- Working relationship between leaders and staff</li> <li>- Expectations and actions of supervisors</li> <li>- Staffing (workload)</li> <li>- Staff suitability</li> <li>- Staff busyness with main tasks</li> <li>- Lack of leadership in hospitals</li> <li>- Leadership commitment</li> <li>- Nursing Manager’s Learning Coaching Behavior (LCB)</li> <li>- Hospital management leadership style that consistently prioritizes PS</li> <li>- Supervisors’ expectations and promotion of PS</li> <li>- Transformational leadership style of unit heads</li> </ul>	(Aisyiah et al., 2024; Arisandhi et al., 2022; Arsani et al., 2023; Dhamanti et al., 2022; Ekaningtyas & Salim, 2023; Karmila et al., 2023; Lestari et al., 2021; Listiowati et al., 2024; Lombongkaehe et al., 2023; Manurung et al., 2023; Octarini et al., 2019; W. A. Pratiwi & Aini, 2021; Wanda et al., 2020; Wardhana et al., 2024; Wijaya et al., 2023; Yulia & Maryana, 2023)	16
	Feedback	<ul style="list-style-type: none"> <li>- Lack of appreciation/reward by the organization</li> <li>- Absence of a reward and punishment system in PSI reporting</li> <li>- Lack of feedback provided by the organization</li> <li>- Feedback on errors</li> </ul>	(Aisyiah et al., 2024; Alfiyyah & Modjo, 2024; Arsani et al., 2023; Dhamanti et al., 2020; Ekaningtyas & Salim, 2023; Harsul et al., 2020; Irwan et al., 2023; Jenita et al., 2019; Karmila et al., 2023; Lestari et al., 2021; Paramita et al., 2020; Patmawati & Djano, 2020; Pramesona et al., 2023; Wardhana et al., 2024)	14
	Reporting System	<ul style="list-style-type: none"> <li>- Limited implementation of SOPs for PSIs reporting</li> <li>- Complicated reporting flow and implementation of PSIs reporting</li> <li>- Incident management: confidential, anonymous, and system-based</li> <li>- Lack of integrated incident reporting flow with Hospital Information System (HIS/SIMRS)</li> <li>- Absence of SOPs for reporting via HIS/SIMRS</li> <li>- PSIs reporting forms sometimes unavailable when incidents occur</li> <li>- Slow performance/access of PSIs reporting applications</li> </ul>	(Alfiyyah & Modjo, 2024; Ana et al., 2023; Irwan et al., 2023; Listiowati et al., 2024; Lombongkaehe et al., 2023; Paramita et al., 2020; Patmawati & Djano, 2020; Pramesona et al., 2023; Saefulmilah et al., 2024; Wijaya et al., 2023)	10

No	Factors	Scope and Findings	Authors	Counts (n=33)	
		<ul style="list-style-type: none"> <li>- No reporting application available through HIS/SIMRS</li> <li>- Time-consuming reporting process due to paper-based forms</li> <li>- Management does not provide adequate facilities/equipment for PSIs reporting</li> <li>- Control system</li> <li>- Monitoring and evaluation of SOP implementation</li> </ul>			
	Socialization and Training	<ul style="list-style-type: none"> <li>- Limited socialization regarding the PSIs reporting system/flow</li> <li>- PSIs reporting training</li> </ul>	(Arisandhi et al., 2022; Dhamanti et al., 2020; Jenita et al., 2019; Pramesona et al., 2023; Saefulmilah et al., 2024)	4	
3	External Factors	Government Support and National Policies	<ul style="list-style-type: none"> <li>- Absence of policies protecting reporting hospitals from sanctions</li> <li>- Lack of leadership at the external hospital level</li> <li>- Incident reporting system is still voluntary and not yet mandatory</li> <li>- Hospitals and healthcare workers have doubts about the confidentiality guarantees of the National PSIs reporting system</li> <li>- External institutions (e.g., Ministry of Health, local health offices) provide limited feedback or socialization to hospitals regarding PSIs reporting</li> <li>- Inadequate government oversight and evaluation of PS programs and incident reporting in Indonesia</li> <li>- District/City and Provincial Health Offices are likewise not engaged in incident reporting</li> <li>- Insufficient governmental support for hospitals</li> </ul>	(Dhamanti et al., 2019, 2022)	2

### 1. Individual Factors

Individual factors related to the determinants of PSIs reporting in Indonesian hospitals include knowledge, attitude and motivation, perception and fear, as well as demographic factors.

First, knowledge is one of the key findings influencing PSIs reporting. Several studies indicated that some staff lack understanding of the types of PSIs, how to report PSIs, the reporting flow, and where to report PSIs. In some cases, reporting is still conducted verbally via telephone. Conversely, good knowledge has been shown to enhance staff motivation and support proper decision-making in PSIs reporting (Alfiyyah & Modjo, 2024; Ana et al., 2023; Arsani et al., 2023; Dhamanti et al., 2020, 2022; Irwan et al., 2023; Listiowati et al., 2024; Nashifah & Adriansyah, 2021; Octarini et al., 2019; Pramesona et al., 2023; Wardhana et al., 2024; Yulia & Maryana, 2023).

Second, attitude and motivation also play a significant role. Low awareness of incident reporting and the intention to engage in deviant behavior were identified as barriers. On the other hand, positive attitudes such as a sense of responsibility for

work, high motivation, support from unit heads and colleagues, self-efficacy or individual confidence, and normative force have been shown to improve compliance in PSIs reporting (Adnyani et al., 2022; Amalia, 2024; Dhamanti et al., 2022; Kusumawati et al., 2019b; Manurung et al., 2023; Nashifah & Adriansyah, 2021; Paramita et al., 2020; A. A. Pratiwi et al., 2024; Wijaya et al., 2023).

Third, perception and fear emerged as frequently identified individual factors. Dominant findings include fear of punishment, fear of being blamed, concern about open forum discussions, and fear of conflicts with colleagues. In addition, the perception that PSI reporting is an additional burden contributes to low reporting rates (Alfiyyah & Modjo, 2024; Dhamanti et al., 2020, 2022; Lestari et al., 2021; Listiowati et al., 2024; Lombongkaehe et al., 2023; Nashifah & Adriansyah, 2021; Pramesona et al., 2023; A. A. Pratiwi et al., 2024; Saefulmilah et al., 2024; Wanda et al., 2020; Wardhana et al., 2024; Wijaya et al., 2023).

Finally, demographic factors such as age, length of service, job level, position, profession, work unit, and participation in quality and PS training also influence PSI reporting. Some studies indicate that nurses are the most frequent reporters of PSIs compared to other healthcare workers. All these findings can be categorized under demographic aspects within individual factors (Dhamanti et al., 2020; Harsul et al., 2020; Kusumawati et al., 2019b).

## **2. Organizational Factors**

Organizational factors related to the determinants of PSIs reporting in Indonesian hospitals include PSC, leadership and management support, feedback, reporting systems, socialization, and training.

First, PSC is a key factor influencing PSIs reporting. Several studies showed that a punitive work climate and blaming culture act as barriers to reporting PSIs. Conversely, the implementation of a no-blame policy, open and effective communication, teamwork within and across units, organizational learning, continuous improvement, learning from errors through incident reporting, constructive organizational culture, and internalization of organizational values and norms have been shown to support increased PSIs reporting (Aisyiah et al., 2024; Arsani et al., 2023; Dhamanti et al., 2022; Ekaningtyas & Salim, 2023; Harsul et al., 2020; Karmila et al., 2023; Kusumawati et al., 2019b; Lestari et al., 2021; Manurung et al., 2023; Patmawati et al., 2022; Patmawati & Djano, 2020; Pramesona et al., 2023; W. A. Pratiwi & Aini, 2021; Wijaya et al., 2023; Yulia & Maryana, 2023).

Second, leadership and management support also play a significant role. Low PSIs reporting has been associated with weak hospital leadership, high workload (staffing), staff suitability, and staff busyness with primary tasks. Additionally, supervision by superiors, quality of leader-staff relationships, supervisors' expectations and actions, leadership commitment, Nursing Manager's Learning Coaching Behavior (LCB), transformational and consistent management leadership style, and promotion of PS by superiors have all been shown to enhance PSIs reporting (Aisyiah et al., 2024; Arisandhi et al., 2022; Arsani et al., 2023; Dhamanti et al., 2022; Ekaningtyas & Salim, 2023; Karmila et al., 2023; Lestari et al., 2021; Listiowati et al., 2024; Lombongkaehe et al., 2023; Manurung et al., 2023; Octarini et

al., 2019; W. A. Pratiwi & Aini, 2021; Wanda et al., 2020; Wardhana et al., 2024; Wijaya et al., 2023; Yulia & Maryana, 2023).

Third, feedback is frequently identified as an organizational factor. The main barriers are lack of appreciation and feedback from the organization, absence of a reward and punishment system, and limited feedback on reported incidents (Aisyiah et al., 2024; Alfyyah & Modjo, 2024; Arsani et al., 2023; Dhamanti et al., 2020; Ekaningtyas & Salim, 2023; Harsul et al., 2020; Irwan et al., 2023; Jenita et al., 2019; Karmila et al., 2023; Lestari et al., 2021; Paramita et al., 2020; Patmawati & Djano, 2020; Pramesona et al., 2023; Wardhana et al., 2024).

Fourth, the reporting system, including technology and infrastructure, is also significantly related to PSI reporting in hospitals. Reported challenges include suboptimal SOP implementation, lack of integrated reporting flow with the Hospital Information System (HIS/SIMRS), absence of SOPs for reporting via HIS/SIMRS, reporting forms not always available when incidents occur, slow application performance, lack of HIS/SIMRS-based reporting applications, time-consuming reporting processes due to paper forms, inadequate facilities/equipment, weak control systems, and insufficient monitoring and evaluation of SOPs (Alfyyah & Modjo, 2024; Ana et al., 2023; Irwan et al., 2023; Listiowati et al., 2024; Lombongkaehe et al., 2023; Paramita et al., 2020; Patmawati & Djano, 2020; Pramesona et al., 2023; Saefulmilah et al., 2024; Wijaya et al., 2023).

Finally, socialization and training also play an important role. Some studies showed that limited socialization regarding the reporting system or flow and minimal training on PSI reporting negatively affect staff compliance in reporting incidents (Arisandhi et al., 2022; Dhamanti et al., 2020; Jenita et al., 2019; Pramesona et al., 2023; Saefulmilah et al., 2024).

### **3. External Factors (Government Support and National Policies)**

External factors related to the determinants of PSIs reporting in Indonesian hospitals include government support and national policies. Identified barriers include the absence of policies protecting reporting hospitals from sanctions, lack of leadership at the external level, voluntary (rather than mandatory) incident reporting systems, hospitals' and healthcare workers' doubts about the confidentiality of the national PSIs reporting system, and limited feedback and socialization from external institutions such as the Ministry of Health and local health offices. In addition, weak monitoring and evaluation of PS programs, exclusion of District/City and Provincial Health Offices from the reporting system, and lack of government support for hospitals are significant barriers to optimizing PSIs reporting in Indonesia (Dhamanti et al., 2019, 2022).

### **Conclusion**

The results of this research synthesis indicate that there are three main groups of factors determining PSIs reporting in Indonesian hospitals: individual, organizational, and external factors. Individual factors include knowledge, attitude and motivation, perception and fear, as well as demographic aspects. Organizational factors comprise PSC, leadership and management support, feedback, reporting

systems, and socialization and training. External factors relate to government support and national policies.

Within organizational determinants, reviewed studies suggest that the availability of user-friendly electronic reporting systems supports PSI reporting by simplifying reporting processes and improving access compared to paper-based systems. Thus, efforts to improve PSIs reporting in Indonesian hospitals require a comprehensive approach, addressing not only the individual aspects of healthcare personnel but also strengthening organizational culture and systems, as well as regulatory and policy support from the national to regional levels. Further research is needed with larger sample sizes from multiple countries to obtain more comprehensive data on the determinants of incident reporting in hospitals.

### **Declaration of Competing Interest**

The authors declare no conflicts of interest.

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