



Journal of Health and Medical Sciences

Nasution, P. C. C. A., & Ayuningtyas, D. (2024), The Association Between Documents and Activities of Hospital Management with Patient Safety Incident Reporting: The 2019 Indonesia Health Facilities Research. *Journal of Health and Medical Sciences*, 7(4), 12-22.

ISSN 2622-7258

DOI: 10.31014/aior.1994.07.04.325

The online version of this article can be found at:
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Published by:
The Asian Institute of Research

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The Association Between Documents and Activities of Hospital Management with Patient Safety Incident Reporting: The 2019 Indonesia Health Facilities Research

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Abstract

Patient safety incident (PSI) reporting is essential to identify underlying problems and improve safety, but PSI reporting in Indonesian hospitals is still low. This study examines factors that contribute to PSI reports. It employed a cross-sectional design and analyzed data from Indonesia's 2019 Health Facilities Research. Methods: According to the criteria, the sample consisted of 462 hospitals. We evaluate the data using the chi-square test. The independent variables were documents, including strategic plans and hospital bylaws; activities included implementing a quality control system, monitoring and evaluation, internal audits, service evaluation and quality control, and periodic meetings. Results: Even though most hospitals already have documents and carry out activities, reports regarding PSI are still lacking in the surveyed hospitals, with half not having any. In Indonesian hospitals, all variables were significantly associated with PSI reports. Hospitals with these documents and management activities, like strategic plans, internal audits, or evaluations, have more PSI reports. Conclusion: The number of PSI reports has increased due to changes in reporting culture, which may indicate a safer culture rather than necessarily an increasing risk. Adopt a comprehensive, data-driven strategy, concentrating on incident reporting and detection. Hospital management must sustainably monitor, assess, and evaluate to encourage PSI reporting.

Keywords: Patient Safety, Near-Miss, Adverse Events, Reporting, Indonesia, Health Facility Research

1. Introduction

Patient safety has become an important issue in healthcare systems worldwide for the last 20 years (Institute of Medicine, 2000). Adverse events (AEs) are one of the leading causes of patient injury (Griffin & Resar, 2009). The AEs rate varies from 7% to 40% (Hibbert et al., 2016). Although some AEs are hard to avoid, studies have shown that 6%–83% of AEs are preventable (Panagioti et al., 2019; Zanetti et al., 2020). Healthcare providers encounter the challenge of enhancing patient safety by AEs detecting and preventing (Hanskamp-Sebregts, Zegers,

Wollersheim, van Gorp, & Westert, 2019). Early detection of AEs is a top concern for patient safety; identifying and analyzing AEs can provide a deeper understanding of healthcare systems' vulnerabilities. When AEs are reported, evaluated, and measured, they can be used as primary data in developing policies and strategies to improve quality and safety and become reliable and achievable (Eggenschwiler et al., 2022; Zanetti et al., 2020; Zhang et al., 2017). However, this is only possible if healthcare providers take this duty (Howell et al., 2017). Experts assume near-misses occur 3 to 300 times more often than AEs (Barach & Small, 2000). However, reporting and analyzing near-miss events should be further utilized as a safety improvement resource. It will help prevent AEs and ultimately improve quality and safety (Harriette Van, Alisha, & Travis, 2015). Patient safety incidents (PSI), including AEs and near-misses, that are not appropriately reported will waste opportunities for quality and safety improvement in healthcare providers (Harriette Van et al., 2015; Heavner & Siner, 2015; Walshe, 2000). Although this is consequential, many obstacles prevent people from reporting (Oweidat, Al-Mugheed, Alsenany, Abdelaliem, & Alzoubi, 2023).

The World Health Organization (WHO) has developed a framework for PSI reporting systems that every country can utilize and adopt (World Health Organization, 2005, 2016). Nevertheless, there is variation in reporting levels between countries, and some countries are less likely to implement the system well (Dhamanti, Leggat, Barraclough, Liao, & Abu Bakar, 2021). Indonesia established a national PSI reporting system in 2005, with two reporting levels: internal and external. Internal reporting at the hospital level instructs written reports regarding all incidents. External reporting at the national level is anonymously reported to the National Patient Safety Committee, including near-misses to sentinel incidents (Hospital Patient Safety Committee, 2015). Even though it has been implemented for more than 15 years, the PSI reporting system in Indonesia still needs to be further improved (Dhamanti, Leggat, Barraclough, & Rachman, 2022).

Recently, healthcare quality has become increasingly critical, sparking interest in monitoring and assessing provider performance. Continuous monitoring system evaluations facilitate the early detection of adverse event trends and changes in healthcare provider performance, which can be used as an effective tool for quality improvement. It will help prevent potentially hazardous situations, expedite corrective action, and improve overall performance (Sibanda et al., 2009; Wang, Wang, Lou, Li, & Zhang, 2013; Zeng, 2016). Healthcare leaders, as critical stakeholders, are primarily responsible for solving this challenge. Interest in effective and sustainable interventions to decrease harm to patients is increasing. Intervening at the organizational level and actively involving staffers in preventing patient safety risks is a promising solution (Hanskamp-Sebregts, Zegers, Boeijen, et al., 2019). Healthcare providers' phases to improve quality are setting priorities, continuous processes, and determining an appropriate framework for implementing initiative programs (Sadeghifar, Jafari, Tofighi, Ravaghi, & Maleki, 2014).

Hospitals should construct adaptable strategic plans, implement them effectively, and establish procedures for handling PSIs to increase patient safety and organizational performance (Mira et al., 2020). One of the most effective strategies for organizational success is carrying out strategic planning well (Sadeghifar et al., 2014). Even though policies governing PSI reporting exist, implementing them is still inappropriate (Dhamanti et al., 2022; Sulahyuningsih, Tamtomo, & Joebagio, 2017; Susrajat & Munir, 2022). The hospital's duties and responsibilities are very important here. Its implementation must be monitored, assessed, and evaluated for maximum results. An effective system for monitoring PSIs is needed to prevent their non-reporting, as monitoring and supervision will increase the willingness to report PSIs (Fathiyani & Ayubi, 2022; Vermeulen, Kleefstra, Zijp, & Kool, 2017). Besides that, audits and feedback are widely used in quality improvement to monitor and change the behavior of health professionals (Hanskamp-Sebregts, Zegers, Boeijen, et al., 2019). Unreported incidents will seriously weaken the capacity of incident reporting systems to encourage understanding and improve quality and patient safety. Understanding the aspects contributing to underreporting is critical to improving PSI reporting systems. However, only a few still highlight this in Indonesia. We examined the factors associated with the availability of PSI data in Indonesian general hospitals using the Health Facilities Research 2019 (RIFASKES) data, which are based on documents and activities related to management factors.

2. Method

This research was cross-sectional and analyzed data from the Indonesia Health Facilities Research 2019 (RIFASKES). The initial survey collected data on hospitals, community health centers, and other facilities. The information collected includes characteristics of facilities, management, organization, planning, implementation, evaluation, supporting facilities, and information systems. Furthermore, hospitals are the emphasis of this study's data. In RIFASKES, the hospital population consists of two groups: referral hospitals and hospitals selected based on sampling, totaling 532. There are two types of hospitals: general and specialized. A general hospital provides health services for all areas and types of diseases. A specialized hospital provides health services primarily for specific types of diseases or in one field only based on organs, scientific disciplines, age, or other aspects. This study excluded specialized hospitals and only included general hospitals, resulting in 462 hospitals. We used the chi-square test to determine the significance.

This research explores the availability of PSI reports and the factors that influence their reporting in Indonesian general hospitals. The PSI for this study focused on both near-miss and adverse events. Near-miss events are events related to medical procedures that almost cause injury or disability to the patient. Adverse events are unforeseen incidents that lead to patient harm, stemming from the execution of a necessary action or the failure to take one rather than the patient's inherent illness or condition. The study's independent variables consisted of documents, including strategic plans and hospital bylaws; activities included implementing a quality control system, monitoring and evaluation, internal audit, service evaluation and quality control, and periodic meetings. The PSI report is declared "yes" if the hospital has data on the number of PSI reports supported by the existence of this document. The analysis focused on hospital management activities, determining "yes" based on the presence of supporting data or documents. Monitoring and evaluation are declared "yes" if the hospital conducts assessments and monitoring procedures to guarantee the efficiency and effectiveness of hospital performance. When implementing a quality control system, the answer is "yes" if the hospital uses the Malcolm Baldrige, EFQM Excellence Model, ISO, or another quality control system and has supporting documentation. Service evaluation and quality control are "yes" if the hospital maintains, monitors, and audits hospital quality through management reviews, internal audits, and implementing safety and infection control procedures with supporting documentation in place. Internal audit is declared "yes" if the hospital carries out activities to assess the conformity of services to standards, including medical audits for cases of death or complex cases, as proven by the existence of audit documents. Periodic meetings are declared "yes" if the hospital holds regular meetings between hospital leadership and staff supported by documents, reports, or notes.

Table 1: Description of the sample (n=462)

Hospital characteristics	n (%)
Accreditation status	
No	49(10.6)
Base	146(31.6)
Middle	33(7.1)
Main	54(11.7)
Plenary	180(39.0)
Ownership	
Private	192(41.6)
Government	270(58.4)
Class	
D	123(26.6)
C	196(42.4)
B	126(27.3)
A	17(3.7)
Size	
<200	303(65.6)
≥200	159(34.4)
Regional category	
Outside Java-Bali	270(58.4)
Java-Bali	192(41.6)

3. Results

3.1 Frequency Distribution

The characteristics of the general hospitals in this research are that most are accredited: 413 (89.4%), with the most prominent accreditation status being plenary (39%). The government owns the most general hospitals, 58.4%, with the majority being in class C (42.4%). Based on the grouping of beds, most hospitals have less than 200 beds, or 65.6%. At 41.6%, most general hospitals are outside Java-Bali (Table 1). The number of general hospitals with no data on near-miss events is 236 (51.1%), while those that have data are 226 hospitals (48.9%). The number of general hospitals with data on adverse events is 233 (50.4%), while 229 hospitals (49.6%) do not. The majority of hospitals have a strategic plan document: 438 hospitals (94.8%); have hospitals bylaw: 416 hospitals (90%); did not implement a quality control system: 238 hospitals (51.5%); have carried out monitoring and evaluation: 318 hospitals (82.5%); have internal audit: 316 hospitals (68.4%); have service evaluation and quality control: 339 hospitals (73.4%); and have periodic meetings between management and staff: 449 hospitals (97.2%) (Table 2).

Table 2: Patient safety incidents and documents and activities of hospital management (n=462)

Variable	n (%)
Data of near miss events	
No	236(51.1)
Yes	226(48.9)
Data of adverse events	
No	229(49.6)
Yes	233(50.4)
Strategic plan documents	
No	24(5.2)
Yes	438(94.8)
Hospital bylaw	
No	46(10)
Yes	416(90)
Implementation of a quality control system	
No	238(51.5)
Yes	224(48.5)
Monitoring and evaluation	
No	81(17.5)
Yes	381(82.5)
Internal audit	
No	146(31.6)
Yes	316(68.4)
Service evaluation and quality control	
No	123(26.6)
Yes	339(73.4)
Periodic meetings	
No	13(2.8)
Yes	449(97.2)

Presents the number of hospitals that have near-misses in Table 3 and adverse events in Table 4 data based on the independent variables in this study: the existence of strategic plan documents, hospital bylaw, implementation of a quality control system, monitoring and evaluation, internal audit, service evaluation and quality control, and periodic meetings. Of the hospitals with strategic plan documents, 51.91% have data on near-miss events, and 52.7% have adverse events. In comparison, most hospitals that do not have a strategic plan document did not have data on the number of near-misses and adverse events, amounting to 91.7%. Based on the existence of the hospital bylaw document, most hospitals with data on near-miss events (51.7%) and adverse events (53.6%) have hospital bylaws. Unlike hospitals that do not have hospital bylaws, most hospitals have no near-miss data (76.1%) and no adverse events data (78.3%). Hospitals that did not implement a quality control system did not have data on near-misses (61.8%) and adverse events (58.8%). Most hospitals that carry out monitoring and evaluation have data on near-miss events (54.1%) and adverse events (55.9%). In contrast, hospitals that do not have monitoring and

evaluation are hospitals where the majority do not have data on near-miss or adverse events. Most hospitals with near-miss and adverse event data carry out service evaluation and quality control activities, have internal audits, and have regular meetings between management and staff.

Table 3: Association between documents and activities of hospital management with near-miss (n=462)

Variable	Data of near-miss events		P-value	OR (95% CI)
	No (%)	Yes (%)		
Strategic plan documents				
No	22 (91.7)	2 (8.3)	0.000	11.514 (2.675-49.559)
Yes	214 (48.9)	224 (51.1)		
Hospital bylaw				
No	35 (76.1)	11 (23.9)	0.001	3.403 (1.683-6.883)
Yes	201 (48.3)	215 (51.7)		
Implementation of a quality control system				
No	147 (61.8)	91 (38.2)	0.000	2.450 (1.686-3.562)
Yes	89 (39.7)	135 (60.3)		
Monitoring and evaluation				
No	61 (75.3)	20 (24.7)	0.000	3.590 (2.084-6.184)
Yes	175 (45.9)	206 (54.1)		
Internal audit				
No	118 (80.8)	28 (19.2)	0.000	7.071 (4.416-11.324)
Yes	118 (37.3)	198 (62.7)		
Service evaluation and quality control				
No	103 (83.7)	20 (16.3)	0.000	7.977 (4.713-13.501)
Yes	133 (39.2)	206 (60.8)		
Periodic meetings				
No	12 (92.3)	1 (7.7)	0.006	12.054 (1.554-93.478)
Yes	224 (49.9)	225 (50.1)		

Table 4: Association between documents and activities of hospital management with adverse events (n=462)

Variable	Data of adverse events		P-value	OR (95% CI)
	No (%)	Yes (%)		
Strategic plan documents				
No	22 (91.7)	2 (8.3)	0.000	12.275 (2.852-52.838)
Yes	207 (47.3)	231 (52.7)		
Hospital bylaw				
No	36 (78.3)	10 (21.7)	0.000	4.160 (2.011-8.602)
Yes	193 (46.4)	223 (53.6)		
Implementation of a quality control system				
No	140 (58.8)	98 (41.2)	0.000	2.167 (1.494-3.143)
Yes	89 (39.7)	135 (60.3)		
Monitoring and evaluation				
No	61 (75.3)	20 (24.7)	0.000	3.867 (2.244-6.662)
Yes	168 (44.1)	213 (55.9)		
Internal audit				
No	122 (83.6)	24 (16.4)	0.000	9.929 (6.048-16.302)
Yes	107 (33.9)	209 (66.1)		
Service evaluation and quality control				
No	103 (83.7)	20 (16.3)	0.000	8.706 (5.139-14.749)
Yes	126 (37.2)	213 (62.8)		
Periodic meetings				
No	12 (92.3)	1 (7.7)	0.004	12.829 (1.654-99.496)
Yes	217 (48.3)	232 (51.7)		

3.2 Association Between Documents and Activities of Hospital Management with Near-Miss and Adverse Event

The chi-square test results showed that all variables had a significant relationship ($\alpha < 0.05$). We found differences between near-miss and adverse event data in Indonesian general hospitals. Strategic plan documents have the highest OR value of 11,514 (2,675-49,559) for near-miss event data and 12,275 (2,852-52.838) for adverse event data. Hospital bylaw has an OR value of 3.403 (1.683-6.883) for near-miss data and 4.160 (2.011-8.602) for adverse event data. Implementing a quality control system has an OR value of 2.450 (1.686-3.562) for near-miss data and 2.167 (1.494-3.143) for adverse event data. Monitoring and evaluation have an OR value of 3.590 (2.084-6.184) for near-miss data and 3.867 (2.244-6.662) for adverse event data. Internal audit has an OR value of 7.071 (4.416-11.324) for near-miss data and 9.929 (6.048-16.302) for adverse event data. Periodic meetings between management and staff had the largest OR of 12,054 (1,554-93,478) for near-miss, while for adverse events, it was 12,829 (1,654-99,496); see Tables 3 and 4.

4. Discussion

Reporting PSI is critical to improving patient safety. However, reports regarding PSI in the surveyed hospitals are still lacking. More than half of these hospitals do not have near-miss data. Similarly, nearly half of these hospitals lack data on adverse events. Near-miss, also known as close calls, is a safety improvement resource underutilized because of a lack of precise definition and reporting. The systematic reporting and analysis of near-misses is crucial to preventing adverse events and enhancing patient safety (Harriette Van et al., 2015). Experts assume near misses happen three to three hundred times more frequently in healthcare settings than adverse events (Barach & Small, 2000). Healthcare organizations should also consider near misses as opportunities for quality improvement (Harriette Van et al., 2015). Compared to adverse events, reporting near misses offers many benefits, such as fewer barriers to data collection, limited liability, and the ability to capture, study, and use recovery patterns for improvement (Barach & Small, 2000).

Poor reporting of patient safety incidents misses opportunities to enhance safety (Harriette Van et al., 2015). Incident reports are crucial in enhancing quality improvement by providing valuable information for education and modification (Heavner & Siner, 2015; Walshe, 2000). Reports on incidents involving the quality of care can reveal hazards to patient safety (Taylor et al., 2008). Still, certain obstacles prevent people from reporting, like forgetting to report, fear of punishment or blame, and concern about disciplinary action (Oweidat et al., 2023). As a crucial first step toward enhancing patient safety, a study recommends organizational and legal modifications to encourage the normalcy of discussing one's shortcomings and mistakes. A punitive search for responsible parties makes it difficult to prevent new adverse events, as there is a tendency to hide what is happening. It should also foster a culture of fair rewards, which requires increased transparency regarding incidents and steps taken to prevent them in the future (Mira et al., 2020). Organization-level factors present a modifiable target for patient safety improvement initiatives. Still, their association with the hospital adverse event rate needs to be better understood (Sauro, Baker, Tomlinson, & Parshuram, 2021). Limited, mainly low-quality evidence supports healthcare performance associations (Brand et al., 2012).

This research analyzes administrative and management factors in hospital organizations related to the existence of patient safety incident reports. The analysis results show that all variables are significant in the presence of data on near-misses and adverse events in general hospitals. Changes in incident reporting culture have led to an increase in the number of reported incidents. However, more incidents reported are not necessarily a sign of increased risk but can also be considered a sign of a safer culture (Vermeulen et al., 2017). PSI reporting is one of the steps needed to improve patient safety, as it can provide a broad picture of the incident and how it happened. It can be used as basic data for policymaking and making patient safety programs in hospitals (Fathiyani & Ayubi, 2022).

4.1 Existence of Documents: Strategic Plan and Hospital Bylaw

This study's results show that strategic plan documents and hospital bylaws were significantly associated with patient safety incident reports in general hospitals. A strategic plan is formed based on vision, mission, goals,

policies, programs, and activities oriented to what is to be achieved within a certain period, including the main tasks and functions of the hospital. Hospital bylaws or internal hospital regulations are written provisions that regulate the organization, position, roles, duties, and obligations of a hospital's three main elements: the owner, hospital manager, and medical staff. Most Indonesian hospitals surveyed had strategic plans and hospital bylaws, but patient safety incident reporting needed improvement. Nearly half do not have data on near-misses or adverse events.

Research has shown that a comprehensive program, including strategic planning, is associated with reduced adverse events (Álvarez-Maldonado, Reding-Bernal, Hernández-Solís, & Cicero-Sabido, 2019). However, hospitals with a documented strategic plan have yet to implement it efficiently and achieve valid outcome evaluations (Sadeghifar et al., 2014). Hospitals will face challenges in managing adverse events, with many needing more protocols for effective response. Therefore, developing and implementing a strategic action plan is necessary to respond to this challenge. To improve patient safety and organizational performance, hospitals should develop flexible strategic plans, implement them effectively, and establish protocols for managing adverse events (Mira et al., 2020). Therefore, hospital management needs to sustainably monitor, assess, and evaluate the implementation of existing regulations to ensure they run well.

4.2 Management Activities

Prior studies have demonstrated that monitoring, assessing, audit, evaluation, and quality control activities are necessary to maintain and enhance quality and safety. An effective system for monitoring incidents is needed to prevent incidents from going unreported (Fathiyani & Ayubi, 2022). A range of studies have demonstrated the effectiveness of various strategies in increasing incident reporting.

4.2.1 Implementation of a quality control system

Implementation of a quality control system is statistically associated with data on near-miss and adverse events. Its implementation in hospitals can increase incident reporting rates. In this study, most hospitals did not implement a quality control system such as Malcolm Baldrige, ISO, EFQM Excellence Model, or other quality control techniques. Also, most hospitals do not have incident data, especially near-miss. Although near-miss data is also essential for learning, many hospitals do not have this data. Implementing a quality management system (QMS), which involves establishing standard operating procedures, quality control measures, and continuous process monitoring to ensure accuracy and reliability, significantly impacts patient safety. Healthcare providers with a robust QMS have lower medical error rates (AlHarshan et al., 2023). Another similar study found that implementing an ISO-based quality management system can help hospitals improve incident reporting to promote quality and safety. These measures contribute to better medical quality, increased reporting intention, and improved hospital incident management systems (Le Duff, Daniel, Kamendjé, Le Beux, & Duvaufferrier, 2005). One effort to improve PSI reporting is by implementing a quality control system. Healthcare providers must continue investing in QMS to ensure the highest quality and safety standards.

4.2.2 Monitoring and evaluation

Hospital monitoring and evaluation is continuously observing and assessing the effectiveness and efficiency of hospital performance based on the Decree of the Minister of Health of the Republic of Indonesia Number 496/Menkes/SK/IV/2005 concerning hospital audit guidelines. The aim is to improve the quality and standardization of hospitals. Recently, there has been much interest in monitoring and evaluating healthcare provider performance because healthcare quality is becoming increasingly important. By enabling the early detection of adverse event trends and changes in healthcare provider performance, continuous monitoring system evaluations help prevent potentially unsafe situations, speed up corrective action, and enhance overall performance, serving as an effective tool for quality improvement (Sibanda et al., 2009; Wang et al., 2013; Zeng, 2016). Evaluating and enhancing individual, unit, and organizational aspects can improve incident reporting (Fathiyani & Ayubi, 2022). Supervision improves the willingness to report patient safety incidents. It reduces risks

associated with medication safety, encouraging a culture of safety and reporting (Vermeulen et al., 2017). This study demonstrates the need for monitoring and evaluation to promote the reporting of patient safety incidents.

4.2.3 Internal audits

Most of the surveyed hospitals had carried out internal audits. The analysis results show that internal audits are significantly associated with data on near-miss and adverse events. The internal audit referred to in this study is an activity to assess whether staff have provided services according to standards, including medical audits for cases of death or complex cases. Internal audits are essential to healthcare quality management because they are a basis for assessing the effectiveness of quality control and surveillance (Morozov et al., 2021). Hospital boards view internal audits as adequate for governing patient safety, helping to identify patient safety issues, and proactively steering improvements (van Gelderen et al., 2017). Therefore, audits are often utilized as interventions to improve the quality of care and patient safety in hospitals, although their effectiveness varies (Hanskamp-Sebregts, Zegers, Wollersheim, et al., 2019; Hanskamp-Sebregts, Zegers, Boeijen, et al., 2019; van Gelderen et al., 2017). However, well-organized investigation and feedback regarding patient safety issues will not be enough to decrease the occurrence of insufficient patient safety outcomes; without focus and organizational support in implementing audit-based corrective efforts, quality improvement through patient safety audits will remain limited (Hanskamp-Sebregts, Zegers, Wollersheim, et al., 2019). The internal audit function is positively and significantly related to sustainability reporting practices in non-healthcare organizations. However, a functioning internal audit can be assessed based on the board audit committee's recommendations and improvement decisions (Tumwebaze, Juma, Twaha Kigongo, Bonareri, & Mutesasira, 2022).

4.2.4 Service evaluation and quality control

Service evaluation and quality control are associated with near-miss and adverse event data in surveyed hospitals. Evaluation activity involves internal audits and management reviews. Meanwhile, quality control involves monitoring, maintaining, and auditing hospital quality to ensure quality, meet established service standards, and satisfy customers through safety. Most hospitals conducting service evaluation and quality control activities have data on adverse events and near-misses. Research has shown a link between service quality and adverse events in healthcare settings. Higher degrees of internal service quality is related to a decline in the frequency of adverse events (Zheng et al., 2018); likewise, reports about service quality weaknesses raise the chance of adverse events (Taylor et al., 2008). Adverse event reports, a vital component of these mechanisms, provide valuable data for quality improvement (Walshe, 2000). Implement practical service evaluation and quality control mechanisms to identify and mitigate potential issues that could lead to adverse events.

4.2.5 Periodic meetings

Patient safety combines people and processes, and both elements depend on leadership. A thoughtful patient safety strategy requires leaders to engage on a personal level (Jarrett, 2017). The results showed that periodic meetings between leaders and staff held regularly within the hospital environment were significantly associated with data on near-misses and adverse events in the surveyed hospitals. They were the variable with the highest OR value in this study. Organizations that provide regular meetings to brief regular reports, connect, and engage staff with leaders to discuss existing or emerging patient safety issues (Chapman et al., 2020). They can have brief conversations with transparent, open, and two-way communication between leaders and staff, increasing situational awareness and improving safety (Aldawood, Kazzaz, AlShehri, Alali, & Al-Surimi, 2020; Chapman et al., 2020; Murray, Clifford, Scott, Kelly, & Hanover, 2024). As critical stakeholders, leaders have the primary responsibility to solve this challenge. Leaders can foster patient safety through personal engagement, such as weekly safety rounds and daily safety calls. This activity not only allows staff to learn about safety concerns with feedback but also demonstrates to staff their commitment to the importance of patient safety (Jarrett, 2017).

5. Conclusion

The study investigates the availability of PSI reports and factors influencing near-misses and adverse events data in Indonesian general hospitals, finding all variables significant. Our research findings support the evidence that

periodic meetings and strategic plan documents have higher OR values and are essential in influencing the availability of PSI reporting data in general hospitals. In addition, hospitals that have implemented monitoring and evaluation, internal audits, service evaluation and quality control, or periodic meetings have more PSI reports. Due to changes in reporting culture, the number of PSI reports has increased. However, more PSI reports may indicate a safer culture rather than increased risk. All hospitals should encourage the reporting of PSI. Concentrate on incident reporting and early detection to implement a comprehensive, data-driven strategy. We provide recommendations to policymakers and hospital leaders, urging them to continuously monitor, assess, and evaluate to encourage PSI reporting, ultimately improving quality and patient safety through increased reporting. It is imperative for future-proof healthcare organizations. Further research should be conducted to develop hospital programs supporting more effective incident reporting.

Author Contributions: PCCAN is conceptualization, data analysis, methodology, writing the original draft, preparation, and revision of the article; DA is conceptualization, supervision, validation, review, and revision.

Funding: No funding for this work.

Conflicts of Interest: The authors declare no conflict of interest.

Ethics approval: The Health Research Ethics Committee, National Institute of Health Research and Development of the Ministry of Health of the Republic of Indonesia, granted ethical approval under the numbers LB.02.01/2/KE.318/2018 and amendment number LB.02.01/2/KE.011/2019.

Acknowledgments: The author would like to thank the Head of the Health Policies and Development Agency of the Ministry of Health of the Republic of Indonesia for providing and allowing the author to use the Health Facilities Research 2019 data. The author would also like to thank the data management team for providing the dataset.

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