BARRIERS TO REPORTING PATIENT SAFETY INCIDENT IN HEALTH CARE WORKERS: INTEGRATIVE LITERATURE REVIEW

Hambatan Pelaporan Insiden Keselamatan Pasien Pada Tenaga Kesehatan: Integrative Literature Review

*Deasy Amelia Nurdin[1], Adik Wibowo[1]
[1]Administration and Health Policy Department, Faculty of Public Health, University of Indonesia, Indonesia
Correspondence*:
Address: Gedung F, Lt.1, Kampus FKM UI, Depok, Indonesia | e-mail: deasyamel@yahoo.co.id

Abstract

Background: The patient safety incident reporting systems is designed to improve the health care by learning from mistakes to minimize the recurrence mistakes, however the reporting rate is low.
Aims: Integrative literature review was chosen to identify and analyze the barriers of reporting patient safety incidents by health care workers (HCWs) in hospital.
Methods: Searching for articles in electronic database consisting of Medline, CINAHL and Scopus resulted in 11 relevant articles originating from 9 countries.
Results: There are differences but similar in barriers to reporting patient safety incident among HCWs. The barriers that occur are the existence of shaming and blaming culture, lack of time to report, lack of knowledge of the reporting system, and lack of support from the management.
Conclusion: Each hospital has different barriers in reporting incident and the interventions carried out must be in accordance with the existing barriers.

Keywords: barrier of reporting, incident reporting, patient safety incident

Abstrak

Latar Belakang: Sistem pelaporan insiden keselamatan pasien dibuat agar rumah sakit dapat mempelajari insiden yang terjadi sehingga meminimalisir terulangnya kesalahan yang sama, namun angka pelaporan dari tenaga kesehatan dirasa belum optimal.
Tujuan: Integrative literature review dipilih untuk mengidentifikasi dan menganalisis hambatan yang terjadi pada tenaga kesehatan dalam melaporkan insiden keselamatan pasien di rumah sakit.
Metode: Pencarian artikel dalam basis data elektronik yang terdiri dari Medline, CINAHL dan Scopus menghasilkan 11 artikel yang relefan dan berasal dari 9 negara.
Hasil: Hambatan dalam pelaporan insiden keselamatan pasien pada tenaga kesehatan memang beragam namun memiliki kemiripan. Hambatan yang terjadi ialah adanya budaya shaming dan blaming, kurangnya waktu untuk melapor, kurangnya pengetahuan tentang sistem pelaporan, dan kurangnya dukungan dari manajemen.
Kesimpulan: Setiap rumah sakit memiliki hambatan yang berbeda-beda dalam pelaporan insiden dan intervensi yang dilakukan harus sesuai dengan hambatannya.

Kata kunci: hambatan pelaporan, pelaporan insiden, insiden keselamatan pasien

Introduction

In the world of health, anything that has the potential to cause injury to patients must be watched out by health care workers (HCWs). They must record and communicate the incidents that were seen and carried out. Incident reporting is included in the patient safety program because it is a learning system that will lead to improving patient safety and security for HCWs at hospital (World Health Organization, 2020).

Patient safety incident (PSI) reporting is one of the hospital indicators, but it is not done consistently even though HCWs are aware that there is a reporting system in their workplace. Errors in health services are the result of weaknesses in a work system. To produce the right solution, it is necessary to identify the root cause of the error. One way that can be done is to report patient safety incidents internally and externally because incident is a tool to detect problems related to patient safety in the hospital.

The patient safety incident reporting system is the monitoring and prevention of injury to patients. The purpose of the reporting system is to learn from mistakes so as to minimize the recurrence of the same mistakes (Samsiah *et al.*, 2016) (M. Christopher, 2016) (Dhamanti, *et al.*, 2020)

HCWs play an important role in PSI reporting, but the information is not fully understood. In Malaysia, the number of reported incidents is lower than the actual number of incidents. Medication errors were estimated to only around 28.9%-50%. Research in Saudi Arabia demonstrated 79% of the incidents were unreported because HCWs had difficulties in reporting them (Samsiah *et al.*, 2016).

Doctors tend to only report serious incidents when compares to nurses and pharmacists who also report near miss (Samsiah *et al.*, 2016). In Iran, even though the reporting system has been made anonymously, around 45% of nurses are still reluctant to report it (Fathi *et al.*, 2017). In Indonesia, a total of 1,227 hospitals have been accredited, but only 668 incidents were reported in 2016, whereas when compared to Taiwan, every year there are 50.000 incidents reported (Dhamanti, *et al.*, 2020).

Hospital leaders need to show a positive attitude towards incident reporting because it leads to improving the quality and safety of patients in the hospital. The first step can be done by building awareness among HCWs of the importance of reporting and definition of incidents that need to be reported. The percentage of the reported number can be displayed to all HCWs and used as an indicator of quality in the hospital (Fathi *et al.*, 2017).

The three important stages in incident reporting are awareness and knowledge of the reporting system, the ability to recognize reported incidents, and the ability to handle incidents so they don't happen again (Dhamanti, *et al.*, 2020). An integrative literature review was chosen to identify and analyse the barriers that occur in HCWs in reporting PSI in the hospital.

Analysis and Discussion Literature Search

The search for articles was sourced from electronic database journals consisting of Medline, CINAHL, and Scopus using Boolean techniques in keyword searches "Patient Safety Incident AND Reporting Barriers" with publication period of journal articles from 2016 to 2020.

In the first stage of the search, there were 450 articles with 44 duplicates. The next stage after reading the title and abstract resulted in 37 articles. After adjusting to the inclusion criteria, the final results of the 11 articles were analysed in this study and stored in Mendeley to be read in full text. Table 1 illustrates the number of articles identified in each database. A peer review process of some articles took place to minimize bias. Issues found on the articles were then identified.

Inclusion and Exclusion Criteria

The inclusion criteria used were original research journal articles and reviews in English which could be accessed in the full text, the study population was HCWs and the results of the research were the barriers of reporting on PSI.

Table 1. Search Strategy

| Base	Terms	Number of Publications	Studies Included
Medline	patient safety reporting barrier AND (fulltext:("1" OR "1") AND db:("MEDLINE")) AND (year_cluster:[2016 TO 2020])	73	4
CINAHL	Full Text; Published Date: 20160101-20201231; Abstract Available; English Language; Exclude MEDLINE records; Publication Type: Academic Journal; Document Type: Article	258	2
Scopus	ABS (patient AND safety AND reporting AND barrier) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018) OR LIMIT-TO (PUBYEAR , 2017) OR LIMIT-TO (PUBYEAR , 2016)) AND (LIMIT-TO (DOCTYPE , "ar") OR LIMIT-TO (DOCTYPE , "re"))	117	4
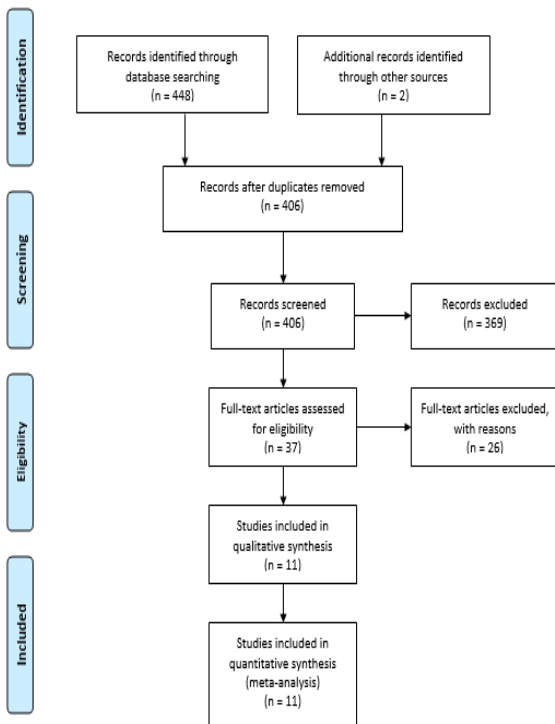
Figure 1. PRISMA flow diagram of search and selection process

Data Extraction

This integrative literature review uses a flowchart form Preferred Reporting Items for Systematic Review & Meta-Analysis (PRISMA) so that article selection can be carried out more systematically as shown in Figure 1.

There were 11 articles that matched the inclusion criteria. The characteristics of the articles are depicted in Table 2. Among the 9 identified countries (UK, Norway, Uganda, Brazil, Iran, Malaysia, Qatar, United States, and Indonesia), the barriers to reporting PSI in HCWs are similar to one and another.

In the Table2, the result of article extraction shows that the barriers by the majority of HCWs are shame and fear of being blamed when PSI occurs.

Other barriers are the lack of time to report due to high workload, did not understanding how the reporting system is, a work environment that does not support a reporting culture, not knowing what to report, and the perception that incident reporting is not their responsibility.

The barriers for HCWs in reporting PSI actually vary from one hospital to another. The strategy developed must be in accordance with the constraints so that will be more focus on the problem (Fathi *et al.*, 2017).

To prevent errors in future care, the hospital must be aware of the problems that occur and act according to the result obtained from incident reporting (M. Christopher, 2016)

Incident reporting systems must be made in a good way (De Fatima *et al.*, 2019). Because incident reporting and the result analysis are useful for increasing awareness of patient safety culture. Analysis is an important part of incident reporting because it determines the causes of incidents and prevents them from recurring (Rea & Griffiths, 2016).

Table 2. Characteristics of Studies

Title	Authors, Year of Publication, Country	Research Methods	Research Sample	Barriers in PSI Reporting
Barriers to Reporting of Adverse Drugs Reactions: a Cross Sectional Study among Community Pharmacists in United Kingdom	(Cheema *et al.*, 2017), UK	Cross-sectional design with online and offline questionnaires	138 pharmacists	Lack of time (46.4%), perceived serious incidents to be reported (65.2%), and no need for reporting (37.0%)
Medication Errors and Safety Culture in a Norwegian Hospital	(Waaseth *et al.*, 2019), Norwegia	Qualitative method with semi-structured interviews	Seven informants (2 doctors, 4 nurses, and 1 pharmacist)	Unable to understand electronic reporting systems, lack of reporting time, poor safety culture, and lack of management support
Patient Safety in Primary Care: Incident Reporting and significant event Reviews in British General Practice	(Rea & Griffiths, 2016), UK	Qualitative method with semi-structured interviews	9 general practitioners	Lack of reporting time, inadequate understanding of what and who to report, shame and fear, and lack of feedback
Practice, Perceived Barriers and motivating Factors to Medical-Incident Reporting: A Cross-section Survey of Health Care Providers at Mbarara regional referral Hospital, Southwestern Uganda	(Naome *et al.*, 2020), Uganda	Cross-sectional design with questionnaire	158 healthcare workers	Lack of knowledge (52.5%), absence of incident management team at the hospital (53.8%), failure to maintain confidentiality of reports (58.9%), lack of support from management (43.0%), blaming culture (40.5%), and administrative penalties (65.2%).

Incidents Reporting: Barriers and Strategies to Promote Safety Culture	(Varallo *et al.*, 2018), Brazil	Group conversation	67 people consisting of nutritionists, physiotherapists, psychologists, pharmacists, therapists, doctors, and nurses	Lack of accountability for reporting culture
Medication Errors among Nurses in Teaching Hospitals in the West of Iran: What We Need to Know about Prevalence, Types, and Barriers to Reporting	(Fathi *et al.*, 2017), Iran	Quantitative method with questionnaires	500 nurses from seven hospitals	High workload and worry about consequences for reporting
Perceptions and Attitudes towards Medication Error Reporting in Primary Care Clinics: A Qualitative Study in Malaysia	(Samsiah *et al.*, 2016), Malaysia	Qualitative method with in-depth interviews	31 healthcare workers	Overlapping reporting systems, high workload, and lack of information about how to report
Barriers to Patient Safety Incident Reporting by Brazilian Health	(De Fatima *et al.*, 2019), Brazil	Integrative review	8 journal articles using a sample of nurses	Fear (62.5%), overwork (25.2%), forgetting to report (22.6%), embarrassment (27%), lack of knowledge (37.5%), and lack of responsibility (50%)
Exploring Facilitators and Barriers to Medication Error Reporting among healthcare Professionals in Qatar Using the theoretical Domains framework: A Mixed-Methods Approach	(Stewart *et al.*, 2018), Qatar	Sequential explanatory mixed methods with questionnaires and FGD	1.604 questionnaire respondents (67.9% nurses, 13.3% doctors, 12.9% pharmacists) dan 44 FGD participants	Concern about work relationship and confidentiality of reports
Improving Incident Reporting mong Physician Trainees	(M. Christopher, 2016), Amerika Serikat	Experimental study	73 resident doctors	Lack of understanding about the reporting system (72.6%), what

				to report (56.2%), and insufficient time to report (42.5%)
Practical and Cultural Barriers to Reporting Incidents Among Health Workers in Indonesian Public Hospitals	(Dhamanti, *et al.*, 2020), Indonesia	Mixed method with convergent parallel design	1,121 health personnel as respondents and 27 hospital managerial staff as informants	Lack of understanding of the reporting system, lack of feedback, fear and complicated reporting system

The literature review comes up with four reasons on why the PSI reporting was not smoothly run.

Shaming and Blaming Culture

Shaming and blaming culture may worsen PSI reporting culture (Naome *et al.*, 2020). A positive culture is necessary to build individual's awareness of reporting incidents (Samsiah *et al.*, 2016).

Culturally, HCWs tend to avoid conflicts with others, i.e., friends and superiors (Dhamanti, *et al.*, 2020), and thus they do not conduct any reporting habits. Naome *et al.* (2020) figured out of 158 respondents, 110 (69.6%) favored a work environment without blaming and shaming culture to encourage compliance with incidence reporting.

Further, Christopher (2016) asserted that interactive incidence reporting training would be very important to promote patient safety culture. To compensate this idea, Dhamanti *et al.* (2020) stated that effective communication within an organization could overcome cultural barriers.

Organization with high incidence reporting rates already have a good perception of patient safety culture (M. Christopher, 2016).All leaders, HCWs, and other staff must be proactive in promoting and implementing a reporting culture (Cheema *et al.*, 2017).

Lack of time

The high number of patients sometimes does not align with the number of nurses available. The same issue also happened at several hospitals in the provinces of Iran, Taiwan, and Germany (Fathi *et al.*, 2017). Samsiah *et al.* (2016) demonstrated HCWs mostly spent their time for caring for patients and did not prioritize reporting role.

Another study conducted by Waaseth *et al.* (2019) mentioned HCWs were too busy during shifts and thus having no time to report incidents. Although the management allows them to report incidents on the next day, most of them forgot to report the incidents. Therefore, strategies should be implemented to reduce their workload (Fathi *et al.*, 2017). A simple and accessible reporting system both manual and web-based could trigger staff motivation to report incidents (Rea and Griffiths., 2016; Waaseth *et al.*, 2019).

Lack of knowledge

Another barrier is disability to define and report the incidence chronology. Research in Malaysia demonstrated HCWs had no idea to report incidents (Samsiah *et al.*, 2016). In the UK, only 45% of pharmacists reported adverse drug reactions (ADR). They perceived only serious incidents should be reported (Cheema *et al.*, 2017). However, any medical errors mainly become common incidents that occur (M. Christopher, 2016).

Many countries have developed incident reporting tools nationwide. However, it might be that as Samsiah *et al.* (2016) stated, reporting systems could be overlapping and become another barrier. For example, the Malaysia Ministry of Health (MOH) introduced a system called the Medication Error Reporting System

(MERS) in August 2009. Apart from MERS, there are also IQ, QAP, and PF statistics which confuse most of the HCWs.

In Brazil, since 2013, hospitals have been called on to report incidents as the country wants to bolster patient safety (De Fatima *et al.*, 2019). The University Hospital of North Norway used a web-based reporting management system, but not all staff could access to the system which was not integrated to all units.

Training on incidence reporting is required for all staff to emphasize on what have been taught (Waaseth *et al.*, 2019). Reporting should be easy, not bureaucratic, and free of hierarchy (De Fatima *et al.*, 2019). Sustainable training will keep HCWs to get used to incidence reporting (Samsiah *et al.*, 2016).

In Uganda, 55.7% of respondents should go on training on incidence identification, and 60.1% needed written guidelines. Educative media about how to report incidence are prominent for the staff (Naome *et al.*, 2020). For example, hospital management can provide an incident reporting flowchart to give more simple incidence reporting procedures (Samsiah *et al.*, 2016).

Several hospitals in Indonesia routinely hold training on safety and incidence reporting programs. However, they did not expel any optimum results. Socialization on the system has to reach all units at the hospital (Dhamanti, *et al.*, 2020).

Lack of support

Leader commitment to PSI reporting is another factor that contributes to the success of the system. Waaseth *et al.* (2019) mentioned that doctors and nurses perceived poor commitment to incidence reporting existed in the managerial level.

The absence of rewards and appreciation is another reason on why staff is unaware of incidence reporting. As a result, staff does not make any positive change (De Fatima *et al.*, 2019).

Dhamanti *et al.* (2020) indicated 52% of respondents received no feedback from their leaders. Meanwhile, according to Samsiah *et al.* (2016), feedback across organization's units positively cultivates staff's interests in continuous incidence

reporting. Moreover, it will increase motivation and compliance with incidence reporting (Naome *et al.*, 2020). Lack of responsibility from HCWs is the other barrier in PSI reporting. To achieve goals in incidence reporting, leaders must address staff with educational interventions where knowledge is transferred actively (Varallo *et al.*, 2018).

Conclusion

PSI reporting is essential for patient safety programs to avoid recurrent mistakes. The barriers that occur are the existence of shaming and blaming culture, lack of time to report, lack of knowledge of the reporting system, and lack of support from the management.

Stakeholders and policy makers require incident reports to reduce the impacts of PSI. Further research needs to be done using more samples in various countries to further collect more data on incidence reporting culture.

Abbreviations
HCWs: healthcare workers; PSI: patient safety incidents.

Declarations

Conflict of Interests
The authors declare that there is no conflict of interests that might have affected the performance.

Availability of Data and Materials
Data and materials are available in an open data repository (Institutional Repository Data).

Authors' Contribution
All of the authors conceptualized the study. DAN wrote the manuscript and AW reviewed the manuscript. Author and co-author discussed the issues together.

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