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Patient Safety Culture and Barriers to Reporting Patient Safety Incidents in District General Hospitals in Indonesia

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Abstract:
Background: *Patient safety culture is a hospital culture that supports all nursing staff to be concerned about learning from patient safety incidents. It takes an active attitude from nursing staff who can recognize something that is not up to standard, report if they make a mistake, and learn from mistakes to make improvements. This study aims to determine the relationship between patient safety culture and barriers to reporting patient safety incidents in District General Hospitals in Indonesia.*
Materials and Methods: *Type of quantitative research with a cross-sectional study design. The research sample consisted of 209 nurses selected by a simple random sampling technique. The data collection tool used the Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire and the Medication Error Reporting Barriers (MERB) questionnaire, which had been tested for validity and reliability. Data analysis used descriptive statistical tests, Chi-Square, and Multiple Logistic Regression.*
Results: *The results show that there is a relationship between Teamwork (p-value = 0.001), Organizational learning (p-value = 0.000), Response to errors (p-value = 0.000), Communicating the error (p-value = 0.019), Communication openness (p-value = 0.000), hospital management support (p-value = 0.000), handoffs (p-value = 0.000), and no relationship staffing (p-value = 0.83), supervisor/clinical leader support patient safety (p-value = 0.065) and Report patient safety incidents (p-value = 0.191) with barriers to patient safety incident reporting at District General Hospitals in Indonesia. The dimension of reporting patient safety incidents is most related to barriers to reporting patient safety incidents (p=0.010 and Odds Ratio (OR) = 2.851).*
Key Words: *Patient Safety Culture, Obstacles, Patient Safety Incident Reporting*

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I. Introduction

In health services, hospitals are required to guarantee patient safety, which makes patient care safer through a patient safety culture system [1]. A defining value, attitude, perception, competency, and pattern of behavior is the product of an organization's safety culture. A positive safety culture is characterized by communication based on mutual trust, with a shared perception of the importance of safety, supporting staff to learn from Patient Safety Incidents [2] [3]. Implementing a patient safety management system is a challenge for hospitals in creating a new paradigm of patient-focused service and patient safety culture because quality care must be safe, effective, patient-centered, timely, efficient, and fair. Therefore the hospital must have a Quality Improvement and Patient Safety Program (QIPSP/PMKP) [3] [4].

The rise of news and reports of patient safety incidents (IKP) has aroused awareness in building the patient safety movement [5], especially for nurses and doctors as the spearheads of health services. Management's support and commitment to humane working conditions for nurses and doctors are also essential in achieving a patient safety culture [6]. The nurse's perspective on patient safety in health services is undergoing significant changes and must be a concern. All levels of nurses play a role in transforming the health care system towards a safer, higher quality, and more effective [7].

A systematic review showed that the average number of safety incidents per 100 patients in primary care was 12.6%, and an average of 55.6% of incidents were considered preventable [8]. In 2016, around 251,000 deaths per year were preventable, with medical error as the third leading cause of death in the United States and 2.8% of deaths due to staff errors yearly [9] [4].

Incident patient safety reporting is carried out internally and externally, and the results of reporting safety incidents are used for decision-making and used as learning [10]. Fear is the most frequent obstacle in reporting

incidents of patient safety. Apart from that, there is no intention to report, time constraints, lack of knowledge, and lack of positive feedback from hospital management are other obstacles [11] [12]. Nurses with high self-efficacy will not be afraid to report because they know that writing benefits learning. Therefore, an anonymous reporting system is needed that is effective, not time-consuming, and uncomplicated [13]. Policymakers' commitment is essential in improving the patient safety incident reporting system [11]. Implementing the patient safety incident reporting system in hospitals in Indonesia is not optimal because there is still a lack of awareness of health workers to report when patient safety incidents occur [14].

Policymakers and hospital managers can use the multidimensional concept of patient safety culture to build staff awareness of patient safety. Dimensional characteristics from the perspective of hospital staff consist of teamwork, staff management, organizational learning, response to mistakes, support from supervisors/clinical leaders for patient safety, communicating about mistakes, open communication, reporting patient safety incidents, hospital management support for patient safety, and handoff [2].

The results of initial data collection at a Regional General Hospital level district in Aceh Province, Indonesia, show that the results of a survey conducted in 2021, out of 142 respondents surveyed, 106 (74.64%) respondents responded that there were no reports, and 36 respondents stated patient safety reports. Reports are submitted only when the incident has become the subject of discussion or when the patient's family complains about a patient safety incident that has occurred and is asked to make a report by the Hospital Patient Safety Committee. Reasons for not reporting patient safety incidents are generally due to fear of being blamed, given punishment, and no protection. In connection with this phenomenon, it is crucial to research the relationship between the application of patient safety culture and barriers to reporting patient safety incidents in District General Hospitals in Indonesia.

II. Material And Methods

Study Design: a cross-sectional study

Study Location: This research was conducted at the district-level Regional General Hospital, Aceh Province, Indonesia

Study Duration: October 30, 2022, to April 27, 2023

Sample size: 209 nurses.

Calculation of sample size: Determination of the sample size in the study used the Slovin formula with a population of 377 nurses, confidence level = 95%, value e = 5%, and the calculation results were added by 10% to prevent a shortage of samples due to dropping out so that a sample size of 209 nurses was obtained.

Subject and selection method: sample selection using a simple random sampling technique with the serial number of the nurse's shift schedule after determining the sample criteria.

Inclusion criteria:
1. Implementing nurses who work in inpatient rooms.
2. Minimum education Diploma III in nursing.
3. Minimum work experience ≥ 1 year.

Exclusion criteria:
1. Nurses who are following a study assignment.
2. Nurses who are on leave or sick.

Procedure methodology

This research was carried out after obtaining written permission from the Director of the District General Hospital where the research was conducted. The questionnaire research data collection tool adopted from the Hospital Survey on Patient Safety Culture (HSOPSC) developed by the Agency for Healthcare Research and Quality (AHRQ) is a questionnaire to assess patient safety culture in hospitals. The questionnaire consists of 32 question items using five alternative answer choices in the form of a Likert scale that combines/composites ten dimensions of patient safety culture composed of 1) teamwork, 2) Staffing, 3) organizational learning, 4) response to mistakes, 5) supervisor/clinical leader support for patient safety, 6) communicating about mistakes, 7) communication openness, 8) reporting patient safety incidents, 9) hospital management support, 10) handoff. The HSOPSC questionnaire has been tested for construct validity with a Cronbach's Alpha value of 0.9. The Barriers

to reporting patient safety incidents questionnaire uses the Medication Error Reporting Barriers (MERB) questionnaire developed for use in skilled nursing facilities [15]. MERB consists of 20 statement items using five alternative answers on a Likert scale. The MERB questionnaire has been tested for construct validity with a Cronbach's alpha value of 0.95 [16]

Research data collection was carried out from February 17 to March 4, 2023, directly by distributing questionnaires to respondents after the researchers first provided information in the form of an explanation of the purpose, benefits, confidentiality of data, and research procedures. Next, the researcher asked about the respondent's willingness to participate voluntarily or not in the study by signing an informed consent form without writing their name. Furthermore, the respondents filled out the questionnaire, lasting approximately 60 minutes. After filling out all the questionnaires, the completeness and correctness of the filling were rechecked by the researcher, and then the researcher terminated the questionnaire with the respondent. This research has passed the ethical due diligence from the Ethics Commission of the Faculty of Nursing, Syiah Kuala University, Banda Aceh, with the research document code 112025281222 dated January 16, 2023.

Statistical analysis

Data analysis used descriptive statistical tests to determine the characteristics of respondents, independent variables (patient safety culture; teamwork, staff management, organizational learning, response to errors, support from supervisors/clinical leaders for patient safety, communication about mistakes, the openness of communication, reporting incidents patient safety, hospital management support for patient safety, and handoff) and the dependent variable (barriers to patient safety incident reporting). The measuring scale for the two variables in this study uses an ordinal measurement scale and categorical measurement results. The inferential statistical test uses the Chi-Square Test to determine whether there is a relationship between the independent and dependent variables with the condition that H0 is accepted if the p-value > α (0.05). The Multiple Logistic Regression Test was used to determine the dimensions of patient safety culture most related to barriers to reporting patient safety incidents, guided by the candidate selection requirements and the multivariate analysis modeling stages.

III. Result

The results of research on the relationship between the application of patient safety culture and barriers to reporting patient safety incidents at District General Hospitals in Indonesia will be presented based on the results of descriptive and inferential statistical tests as follows:

Tabel-1: Respondent Demographic Frequency Distribution (n=209)

Characteristics	f	%
Age:		
17 - 25 Years	2	1.0
26 - 35 Years	123	58,9
36 - 45 Years	7	35,9
> 46 Years	5	4,3
Gender:		
Male	69	33,0
Female	140	67,0
Education:		
Diploma III in Nursing	169	80.9
Diploma IV in Nursing	1	0,5
Nurse Profession	39	18.7
Years of service:		
15 years	88	42,1
6 – 10 Years	49	23,4
>10 Years	72	34,4
Employment status:		
Civil Servant	62	29.7
Contract	147	70,3

Table 1 shows that there were 123 respondents (58.9%) who were in early adulthood (26-35 years old), female140 respondents (67%), the last educational background Diploma-III in Nursing 169 respondents (80.9%), the highest working period of 1-5 years, totaling 88 respondents (42.1%), while for employment status, the most respondents as contract workers amounted to 147 respondents (70.3%).

Table-2: Frequency Distribution of Patient Safety Culture Dimensions

Dimensions of Patient Safety Culture	f	%
Teamwork		
Good	171	81.8
Poor	38	18.2
Staffing		
Good	42	20.1
Poor	167	79.9
Organizational learning		
Good	123	58,9
Poor	86	41,1
Response to errors		
Good	65	31.1
Poor	144	68,9
Supervisor/clinical leader supports patient safety		
Good	84	40,2
Poor	125	59,8
Communicating the error		
Good	170	81,3
Poor	39	18,7
Communication openness		
Good	135	64.6
Poor	74	35.4
Report patient safety incidents		
Good	121	57.9
Poor	88	42.1
Hospital management support		
Good	67	32.1
Poor	142	67,9
Handoff		
Good	60	28,7
Poor	149	71,3

Table 2 presents the dimensions of patient safety culture; 171 respondents (81.8%) in the good category of teamwork, 167 respondents (79.9%) in the poor staffing category, 123 respondents (58.9%) in the good category of organizational learning, 144 respondents in the poor category of responses (68.9%), supervisors/clinical leaders support patient safety in the poor category by 125 respondents (59.8%), communicating errors in the good category by 170 respondents (81.3%), good communication openness by 135 respondents (64 .6%), reported patient safety incidents in a good category by 121 respondents (57.9%), hospital management support in the poor category by 142 respondents (67.9%), and dimensions of handoff in the poor category by 149 respondents (71, 3%).

Tabel-3: Patient Safety Culture Frequency Distribution and Barriers to Patient Safety Incident Reporting (n=209) (n=209)

Patient Safety Culture	f	%
Good	90	43.1
Poor	119	56.9
Total	209	100
Barriers to Patient Safety Incident Reporting	f	%
Yes	112	53,6
No	97	46,4
Total	209	100

Table 3 shows that the implementation of patient safety culture in the poor category was 119 respondents (56.9%) and barriers to reporting patient safety incidents in the category of obstacles were 112 respondents (53.6%) in District General Hospitals in Indonesia.

Table-4: Relationship between patient safety culture and barriers to patient safety incident reporting (n=209)

Dimensions of Patient Safety Culture	Barriers to Patient Safety Incident Reporting						*p*
	Yes		No		Total		
	f	%	f	%	f	%	
Teamwork							
Good	82	48.0	89	52.0	171	100	0,001
Poor	30	78.9	21.1	21.1	38	100	
Total	112	53.6	97	46.4	209	100	
Staffing							
Good	17	40.5	25	59.5	42	100	0,083
Poor	95	56.9	72	43.1	167	100	
Total	112	53.6	97	46.4	209	100	
Organizational learning							
Good	52	42.3	72	57.7	123	100	0,000
Poor	60	69.8	26	30.2	86	100	
Total	112	53.6	97	46.4	209	100	
Response to errors							
Good	15	23.1	50	76.9	65	100	0,000
Poor	97	67.4	47	32.6	144	100	
Total	112	53.6	97	46.4	209	100	
Supervisor/clinical leader supports patient safety							
Good	38	45.2	46	54.8	84	100	0,065
Poor	74	59.2	51	40.8	125	100	
Total	112	53.6	97	46.4	209	100	
Communicating the error							
Good	84	49.4	86	50.6	170	100	0,019
Poor	28	71.8	11	28.2	39	100	
Total	112	53.6	97	46.4	209	100	
Communication openness							
Good	50	37.0	85	63.0	135	100	0,000
Poor	62	83.8	12	16.2	74	100	
Total	112	53.6	97	46.4	209	100	
Report patient safety incidents							
Good	70	57.9	51	42.1	121	100	0,191
Poor	42	47.7	46	52.3	88	100	
Total	112	53.6	97	46.4	209	100	
Hospital management support							
Good	13	19.4	54	80.6	67	100	0,000
Poor	99	69.7	43	30.3	142	100	
Total	112	53.6	97	46.4	209	100	
Handoff							
Good	9	15.0	51	85.0	60	100	0,000
Poor	103	69.1	46	30.9	149	100	
Total	112	53.6	97	46.4	209	100	
Patient Safety Culture							
Good	22	24.4	68	75.6	90	100	
Poor	90	75.6	29	24.4	119	100	0,000
Total	112	53.6	97	46.4	209	100	

Table 4 shows that there is a relationship between the dimensions of patient safety culture; teamwork (p-value = 0.001), learning organization (p-value = 0.000), response to mistakes (p-value = 0.000), communicating mistakes (p-value = 0.019), communication openness (p-value = 0.000), hospital management support (p-value = 0.000), Handoff (p-value = 0.000), and no relationship dimension staffing (p-value = 0.83), and supervisor/clinical leader supports patient safety (p-value = 0.065) with reporting incidents (p-value = 0.191) with barriers to reporting patient safety incidents. Overall, there is a relationship between implementing a patient safety culture with barriers to reporting patient safety incidents in District General Hospitals in Indonesia (p = 0.000).

Table-5: Dimensions of Patient Safety Culture Most Associated with Barriers to Patient Safety Incident Reporting (n=209)

Dimensions of Patient Safety Culture	B	*p*	Odds Ratio (OD)	95 % CI
Communication openness	-1.873	0.000	0.154	0.061-0.386
Report patient safety incidents	1.048	0.010	2.851	1.291-6.293
Hospital management support	-1.968	0.000	0.140	0.061-0.318
Handoff	-1.330	0.005	0.264	0.105-0.665

Table 5 shows that the dimensions of patient safety culture that are most related to barriers to reporting patient safety incidents are reporting patient safety incidents with p-value = 0.010 and odds ratio = 2.851 (95% CI: 1.291-6.293), meaning that nurses with dimension report patient safety incidents good category, has a 2.8 times chance of having no barriers in reporting patient safety incidents compared to nurses who report poor patient safety incidents at District General Hospitals in Indonesia.

IV. Discussion

Patient safety is a condition that guarantees the patient is free from injury and potential injury [5]. A patient safety culture in the hospital will be present through a collaborative environment that respects one another, leadership support by creating psychological safety for staff, and learning from patient safety incidents, improving efforts to prevent a recurrence [3]. The results of this study generally indicate that of the 119 respondents whose patient safety culture was in the poor category, 90 respondents (75.6%) had obstacles in reporting patient safety incidents (p-value = 0.000). It can be concluded that there is a relationship between patient safety culture in the poor category with barriers to reporting patient safety incidents.

Patient safety culture ensures patient safety and will affect individual performance in its implementation. The low number of incidents indicates patient safety. Nurses are expected to report incidents openly [17]. A patient safety culture will work if there is mutual respect for one another in the organization. Incident reporting is required for future learning purposes. Reporting of patient safety incidents will not occur if there are still obstacles in reporting. The research analysis results show that the culture of patient safety in District General Hospitals in Indonesia is still not good. Only five dimensions are in a good category.

Patient safety culture has a significant effect on patient safety incident reporting. A better patient safety culture is significantly correlated with the level of patient safety incident reporting. Responses to non-punitive errors also affect the reporting of patient safety incidents. Fear of punishment and a culture of blame focusing solely on the individual are common reasons for not reporting incidents. The nurse is unsure of the confidentiality of incident reporting. The support and actions of the supervisor/clinical leader are needed to provide support and assurance of confidentiality to nurses who report incidents.

Furthermore, the results of this study will be discussed, including the ten dimensions of patient safety culture with barriers to reporting patient safety incidents. A team is a group of two or more people who work interdependently towards a common goal [18]. Teamwork describes the emotional commitment of staff to the organization with the aim that the staff cares about their work, not only working for salary or promotion but working on behalf of organizational goals [19]. The results of this study indicate that of the 117 respondents with teamwork in the good category, 89 respondents (52.0%) had no obstacles in reporting patient safety incidents (p-value = 0.001). This means there is a teamwork relationship with no barriers in reporting patient safety incidents. The results of this study indicate that teamwork is a vital dimension of developing patients' safety culture. The results of studies using team behavior observation methods have identified patterns of communication, coordination, and leadership that provide support for effective teamwork [20]. Research conducted in Saudi Arabia shows that teamwork is in a good category (85.8%). Nurses feel there is support, unity, respect, and cooperation among staff to achieve high-quality, safe, efficient, and prompt care. Staff considers their relationship open, safe, respectful, and flexible [21]. The mutual trust that fellow team members will carry out their roles and protect their interests is a feature of an effective team [18].

The next dimension of patient safety culture is staffing. The results showed that of the 167 respondents with staffing in the poor category, 95 respondents (56.9%) had obstacles in reporting patient safety incidents (p-value = 0.083). This means no staffing relationship exists with barriers to reporting patient safety incidents. Staffing is a critical phase of the management process in healthcare organizations because these organizations are usually labor-intensive. In addition, many healthcare organizations are open 24 hours a day, 365 days a year, and client demands and needs often vary. A sufficient workforce should reflect the right balance between highly skilled, competent professionals and auxiliary support workers [19]. Staff adequacy was the strongest predictor of patient safety, but dominance analysis showed that hospital management support was the most important predictor of staff adequacy [4]. Staff who feel burdened by the mismatch of personnel with their work activities affect nurses negatively due to long hours of heavy workload and negatively impact patient outcomes [21] [20]. Increasing the ratio of patients that is higher than the number of nurses in the hospital will potentially have a

higher risk of negligence [23]. Another study conducted at the Regional General Hospital in Aceh Province, Indonesia, regarding the Relationship between Nursing Units with Missed Nursing Care, showed that the factor most related to missed nursing care was the ratio of one nurse to more than seven patients in each shift (p-value = 0.000 and odds ratio = 85.110) [37]. A higher workload and a high ratio of nurses and patients increases the risk of medication errors, iatrogenic complications, hospital morbidity, and length of stay in the hospital and endangers patient safety [38].

Organizational learning is an ongoing phenomenon in both formal and informal learning [20]. The results showed that of the 123 respondents with good category organizational learning, 72 respondents (57.7%) had no obstacles in reporting patient safety incidents (p-value = 0.000). This means there is a good organizational learning relationship with no barriers to reporting patient safety incidents. Marilyn Anne Ray's theory compares the change in complex organizations to a creative process, challenging nurses to step back and update their perceptions of everyday events to find embedded meaning. This is especially important during organizational changes [25]. His theory advances the vision of nursing and organization as complex, dynamic, relational, integral, and informational [26]. Nurses and other professionals must be open to change, to the integral nature of the dynamic unity of humans and the environment, and to the emerging coherent and unified phenomena that shape the nursing world [25].

Organizational learning to develop in a better direction is the responsibility of leaders to encourage effective teamwork and create a sense of psychological safety. Team members can learn from patient safety incidents [3]. Making continuous efforts to improve patient safety is twice as likely to report patient safety incidents [22]. Organizational learning emphasizes using learning processes at the individual level to transform into the organization [27], and increased reporting of patient safety incidents occurs to nurses and health workers whom the organization has allowed to attend patient safety training [13]. With good organizational learning, it is very likely to increase the reporting of patient safety incidents. The ability to learn from mistakes for positive change and be evaluated for effectiveness is necessary in organizations. Patient safety incident reports as data that organizations will use to change the system in a better direction will not be achieved if awareness in reporting patient safety incidents is low.

This study also showed that of the 144 respondents who respond to errors in the poor category, 97 respondents (67.4%) had obstacles in reporting patient safety incidents (p-value = 0.000). This means a relationship exists between organizational learning that is not good with obstacles in reporting patient safety incidents. Safety culture is an error-free environment where staff members feel comfortable reporting errors [28]. To minimize the burden on nurses in reporting errors, an anonymous system that is effective, not time-consuming, and uncomplicated is needed [13]. The barrier to reporting patient safety incidents is a culture of blame. Staff are concerned about the consequences of individual errors, and those willing to report them tend to be the same people [11]. In a strong safety culture, individuals feel comfortable paying attention to potential risks or actual failures without fear of criticism from managers [20]. Fear is a significant barrier to reporting patient safety incidents [29]. Reporting of safety incidents will materialize when the response to errors is no longer focused on the individual who made a mistake but rather on how to find the root causes that caused the incident to occur. Thus, there will be no obstacles in reporting patient safety incidents.

Likewise, with the supervisor/clinical leader dimension, it is necessary to consider staff suggestions to improve patient safety. Praising and rewarding staff for following patient safety procedures and not ignoring patient safety issues is important [30]. The results showed that of the 125 respondents with supervisor/clinical leader support in the poor category, 74 respondents (59.2%) had obstacles in reporting patient safety incidents (p-value = 0.065). This means there is no relationship between supervisor/clinical leader support, which is not good with obstacles in reporting patient safety incidents. The supervisor/clinical leader is the nursing staff's planner and resource person, responsible for providing the conditions necessary for optimal team functioning. They also act as coordinators between teams so that teams can work well together to achieve common goals [31]. Supervisor/clinical leader support is needed to promote patient safety, and they must guarantee confidentiality to nurses who report incidents [11]. Supervisors should allocate the necessary time and space to seek input from nursing staff, recognize their contribution to patient safety, and praise and reward their concern for patient safety [24]. Supervisor/clinical leader support for reporting patient safety incidents can be in the form of promotions about patient safety and support for staff reporting patient safety incidents. The supervisor/clinical leader must be able to raise awareness of nurses to report if there is a patient safety incident and must also be able to convince nurses that the reports provided will be kept confidential.

Communicating an error is a constructive dimension of patient safety culture that will influence efforts to improve actions that promote patient safety [20]. he results showed that of the 170 respondents who communicated errors in the good category, 86 respondents (50.6%) had no obstacles in reporting patient safety incidents (p-value = 0.019). This means that there is a relationship between communicating an errors in the good category no relationship with obstacles in reporting patient safety incidents. Someone's motivation will emerge if allowed to try and get feedback from the results given. Therefore, psychological appreciation is needed so that

someone feels valued and cared for, and guided when they make mistakes [32]. A culture of openness and the ability to say what's happening helps ensure patient safety. If incident reporting does not provide feedback to the reporting nurse, they are reluctant to report back [20]. Lack of feedback, follow-up, and prevention to prevent the recurrence of incidents will have a negative impact on nurses in reporting incidents. Lack of response, communication, and discussion after the report can make nurses reluctant to report incidents later [11]. Feedback provided on staff reporting errors will result in increased incident reporting [29]. Nurses view patient safety best when they receive feedback on incident reports, discuss ways to prevent errors from recurring, and feel free to share their views and questions about patient safety with hospital leadership [7].

Likewise, with the dimensions of communication openness, the results of this study indicate that out of 135 respondents with good category communication openness, 85 respondents (63.0%) had no obstacles in reporting patient safety incidents (p-value = 0.000). That is, there is a relationship between communication openness in the good category and the absence of barriers in reporting patient safety incidents. A culture of openness and the ability to say what is happening helps ensure patient safety [11]. Nursing staff speaks freely if they see anything that could negatively affect the patient and feel free to ask questions of higher authority [20]. Nurses are more likely to assign better levels of patient safety when they perceive more elevated levels of communication openness [24]**.** rganizations with a positive safety culture are characterized by communication based on mutual trust, with a shared perception of the importance of patient safety [23]. Marilyn Anne Ray's theory states that caring is expressed not only in relational patterns of humanity and more interpersonal affection but also in official bureaucratic structures, especially political and economic structures, and both expressions are incorporated into professional meaning systems [26]. Open communication will allow nursing staff to voice patient safety as service providers. Nurses can also provide ideas to support the realization of patient safety incident reporting.

This study also showed that out of 121 respondents who reported patient safety incidents in the good category, 70 (57.9%) had obstacles in reporting patient safety incidents (p-value = 0.191). This means there is no relationship between reporting patient safety incidents in the good category with barriers to reporting patient safety incidents. However, in multivariate analysis with multiple logistic regression modeling, the results show that reporting patient safety incidents is the dimension most related to reporting patient safety incidents (p-value = 0.010 and Odds Ratio = 2.851). It can be concluded that nurses who report patient safety incidents in the good category are 2.8 times more likely to have no obstacles in reporting patient safety incidents than nurses who report patient safety incidents in the poor category.

Reporting patient safety incidents is very important in the healthcare system because it helps identify underlying risks and prevent the same mistakes from being repeated. The low rate of patient safety incident reporting in hospitals makes identifying errors and conducting further investigations complex [12]. atient safety culture has a significant effect on attitudes toward incident reporting. The level of patient safety culture is significantly correlated with the level of patient safety incident reporting. The knowledge, understanding, and accountability of nurses assigned to patient safety teams can influence attitudes toward reporting patient safety incidents [11].

he most frequently reported common barriers based on the literature review results are; Fear of consequences is the most reported barrier worldwide, while work culture is the most reported barrier in the United States. Reporting barriers may vary from one center to another. Every healthcare institution must identify local barriers to reporting and implementing potential solutions. Addressing these barriers may require changes in the hospital's management strategy to align and promote a patient safety culture [29]. There are seven general themes of barriers to incident reporting; 1) Fear of consequences, 2) Lack of feedback, 3) Work climate/culture, 4) Lack of understanding of incidents and the importance of incident reporting, 5) Takes a long time 6) Lack of reporting system 7) Personal factors [29]. From the nurse's perspective, understanding the perceived barriers to reporting errors is also very important in promoting reporting behavior. One of the barriers to reporting incidents is the form used to report incidents which are lengthy and time-consuming in writing[29]. From the nurse's perspective, understanding the perceived barriers to reporting errors is also very important in promoting reporting behavior. One of the barriers to reporting incidents is the form used to report incidents which are lengthy and time-consuming in writing [24] [16].

The study's results on the dimensions of hospital management support show that out of 142 respondents with hospital management support in the poor category, 103 respondents (69.1%) had obstacles in reporting patient safety incidents (p-value = 0.000). This means that there is a relationship between hospital management support in the poor category and barriers to reporting patient safety incidents.

Leading and supporting staff safety is one of the implementations of the seven steps to patient safety. As a form of hospital responsibility in establishing a health care system to ensure patient safety [33]. The implementation of the patient safety program is inseparable from management support [27]. Hospital management provides a workplace that maintains patient safety and demonstrates that patient safety is a top priority [20]. Hospital management for patient safety is a strong predictor of patient safet [24]. The support in question consists

of the availability of resources, policies, and the creation of an atmosphere that supports the implementation of patient safety [34]. he results of other studies show no match with the results of this study that nurses with higher levels of management support are twice as likely to report patient safety [24].

Handoff is the final dimension of patient safety culture. The results of this study indicate that of the 149 respondents with handoffs in the poor category, 103 respondents (69.1%) had obstacles in reporting patient safety incidents (p-value = 0.000). This means that there is a relationship between the handoff category that is not good with the presence of barriers to reporting patient safety incidents. Patient handoff or handover is defined as the transfer of information and acceptance of responsibility for patient care, achieved through effective communication [35]. Documented handover that is complete, accurate, timely, and relevant can promote patient safety [36]. The handoff dimension is one of the weak dimensions (36%) and requires improvement in all included studies. Quality improvement efforts within healthcare organizations target handoffs because they carry a high risk of patient safety incidents and can lead to loss of critical information and fragmentation of patient care [20]. Handoff is closely related to the system of cooperation and coordination between health workers when changing work shifts [34].

he success rate of the handoff process depends on the perception of the importance of the handoff procedure. Education and training can improve the ability to carry out better handoffs so that good cooperation is needed from all related services. Coordination between staff in changing shifts is needed. Data which is a source of information about patients, is often lost in the process of changing shifts. The process of transferring patients should be carried out professionally [27]. Handoff is related to reporting patient safety incidents. In the process that nurses receive, they are not immune from the threat of errors in action, both received within the unit and between units. The creation of a transfer of information in a good handover process will identify incidents, so incident reporting can be done immediately.

V. Conclusion

The results showed a relationship between patient safety culture and barriers to reporting patient safety incidents (p-value = 0.000). The dimension of reporting patient safety incidents is the dimension most related to barriers to reporting patient safety incidents at District General Hospitals in Indonesia (p-value = 0.010 with an odds ratio (OR) = 2.851 (95% CI: 1.291-6.293).

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