

Patient Safety Reporting and Implementation during the Pandemic Covid 19

Ni Nyoman Gunahariati^{1,*}, Putu Sudarmika², I Made Sutajaya³, Ida Bagus Putu Arnyana³, Gede Sudirtha³

1. Quality and Patient Safety Committee, Sanglah General Hospital Denpasar.

2. Research and Development Department, Sanglah General Hospital Denpasar.

3. Science Education, Ganesha University of Education.

ARTICLE INFO	ABSTRACT
<p>Article type: Original Article</p> <hr/> <p>Article History: Received: 30-Jun-2021 Accepted: 07-Aug-2021</p> <hr/> <p>Key words: Patient safety, Pandemic, Recording.</p>	<p>Introduction: The goal of this research was to determine the recording and implementation of patient safety during a pandemic.</p> <p>Materials and Methods: This study was conducted through in 2 phases. In the first phase, the design used is pre and post-design. The researchers analyzed patient safety reports from each treatment room. The data collected retrospectively were patient safety data in the patient safety recording 2019 and data in the 2020 report. The second part consisted of conducting structured interviews through focus group discussions held in two sessions, with five respondents in each session.</p> <p>Results: A total of 33 patient care units were included in this study. There were differences in the recording and reporting of patient safety before the pandemic and during the pandemic (P=0.001), there were differences in the implementation of patient identification (P= 0.026), there was a difference in effective communication (P= 0.040), while drug alertness was not significantly different (P= 0.970); there was a difference in the accuracy of surgical procedures (P= 0.016), there was a difference in infection prevention (P= 0.011), and prevention of falling risk (P= 0.001).</p> <p>Conclusion: There was a decrease in the number of recordings and reporting on patient safety because officers serving patients are more focused on the condition of patients with Covid-19. Nurses are faced with a new disease that raises concerns about transmission and the use of complete PPE so that voices are not heard. Recommendations for using research results as learning materials in policymaking.</p>
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Introduction

Patient safety has become a health concern, especially in light of the Covid-19 outbreak, which has had a huge influence on patient

safety implementation. In general, the Covid-19 pandemic has had extraordinary consequences with high morbidity and mortality. Covid-19 virus infection causes

*Correspondence Author:

Putu Sudarmika, Sanglah General Hospital Denpasar.

E-mail: sudarmika_sanglah@yahoo.co.id

sufferers to separate from their families because they have to undergo isolation and limit direct face-to-face contact with people around them. The economic consequences are also affected by Covid-19, such as the closure of public spaces, offices, and the number of layoffs.

Such a large impact on the world of economy and health also affects the implementation of patient safety such as delaying patient diagnosis, errors in communication, medical errors, and failure in infection control (1). SARS-CoV-2 transmission can occur by infected fluids such as saliva and respiratory secretions or respiratory droplets emitted when an infected person coughs, sneezes, talks, or sings, or through direct, indirect, or close contact with an infected person. Indirect contact transmission occurs when a susceptible host comes into contact with a contaminated object or surface (2).

Covid-19's fast spread has resulted in an international pandemic, with the death toll predicted to continue to grow. The high mortality rate puts tremendous pressure on health systems and healthcare workers. The ineptness of healthcare providers such as doctors and nurses compromises patient safety and quality of care, putting patients with Covid-19 and those who care for them at risk. Fatigue, lack of team trust, lack of time, and lack of psychological safety can increase this deficit, resulting in worse performance and contributing to failures such as misdiagnosis and adverse events (3). The real problem that occurs during the Covid-19 pandemic season is that health workers face a deadly virus with limited personal protective equipment. This is a source of emotional distress that impact on officer fatigue (4).

In the Covid 19 pandemic situation, health workers provide direct services to patients, so they have the potential to be exposed to Covid 19 (5). The transmission of Covid 19 viruses is a significant threat to health care workers in providing health services (6). Nurses play a critical role in patient management, being the frontline in health care (7). Nurses' delivery of health services results in close contact between nurses and patients. Nurses in inpatient rooms interact with patients for 24 hours, and numerous

actions that produce aerosols, such as the use of nebulizers, will affect the transfer of covid 19 to nurses (8). The significant risk of transmission has an impact on the execution of patient safety measures.

According to the Ministry of Health of the Republic of Indonesia's 2017 Regulation, patient safety is a system in which the hospital makes patient care safer by performing risk assessments, identifying and managing patient risks, reporting and analyzing incidents, and the ability to learn from incidents, as well as their follow-up and implementation. Solutions to reduce risks and avoid injuries caused by mistakes made as a result of doing or not taking appropriate action (9).

The Covid-19 pandemic puts health workers at risk of becoming infected, raising fear of transmitting family members are infected, which generates insecurity about atypical work obligations, as well as anguish over difficult decisions and death (10). The physical presence of families and loved ones have been limited due to policies aimed at preventing the spread of the illness. Disconnecting has the potential to jeopardize achievements in patient-centered care and the family's position as a major safety partner. Even among hospitals, there has been a reduction in financing for innovations, all of which harm patient safety (1).

Health institution leaders must realize that the limited attention paid to the psychological safety of health workers due to the emotional distress that arises as a result of the pandemic could adversely affect the health and safety institutions of patients in intensive care units (ICUs) (4). The results of the study (11) following the commencement of the Covid-19 epidemic, there was a significant decline ($P < 0.003$) in the reporting of events. Incident reporting reductions were assessed in terms of perceived danger, volume, and nature of work. Staff support is necessary to increase patient safety efforts by reducing the risk of future patient safety incidents. Therefore, it is necessary to conduct research that evaluates how the implementation of patient safety has been carried out before the pandemic season and during the Covid-19 pandemic.

Materials and Methods

This research is the first project created by the Patient Safety Committee at Sanglah Hospital and has received approval under the number LB.02.01/XIV.2.2.1/15602/2021. This study has also gone through an ethical feasibility procedure and received ethical clearance from the Udayana University independent commission with letter number 824 / UN14.2.2.VII.14 / LT / 2021. The goal of this study was to determine whether there were any correlations between patient safety report data and patient problems. Nurses in patient safety implementation as a learning tool to improve patient safety implementation in hospitals.

This study was conducted through in 2 phases. In the first phase, the design used pre and post-design. The researchers analyzed patient safety reports from each treatment room. The data collected retrospectively were patient safety data in the patient safety recording 2019 and data in the 2020 report. The population in this study was all reports made by the care unit. The treatment unit consisted of inpatients and outpatients with a total of 33 treatment rooms. A total sampling strategy was used in this study. The validity test in this study used Pearson correlation on 13 items and 11 valid items were obtained with p -value < 0.05 and r value > 0.811 . The reliability test obtained $\alpha > 0.975$.

Descriptive analysis was used to describe the data based on the mean values and standard deviations. Bivariate analysis was carried out using a parametric independent t-test if the data met the data normality and data homogeneity requirements. The normality test of the data was performed using Shapiro Wilk test and the homogeneity of the data using the Levene test. Statistic analyses were performed using the SPSS software (version 25).

Structured interviews and focus group discussions were conducted in the second part of the study. Focus group talks were held in two sessions, with five respondents each. Respondents were selected using a purposive sampling technique. Respondents who took part in interviews in focus group discussions were provided with an

explanation and informed consent. The data obtained from the informants will be triangulated with the person in charge in the inpatient room and the results of the analysis of the patient safety report.

Results

A total of 33 patient care units were included in this study. The results of observations in the first phase were data collection based on patient safety reports in 2019 and patient safety incident reports in 2020. Descriptive data analysis to describe the results of recording and reporting patient safety including reporting patient identification, effective communication, the safety of medicines that must be vigilant, correct surgery location, correct procedure, correct surgery on patients, risk of infection due to health care, risk of patient injury due to falls and reporting of patient safety incidents before the Covid-19 pandemic and during the pandemic.

The number of reported patient safety incidents in 2019 experienced a decline in 2020 starting with the Covid-19 pandemic with the first case being treated at Sanglah Hospital in March 2020.

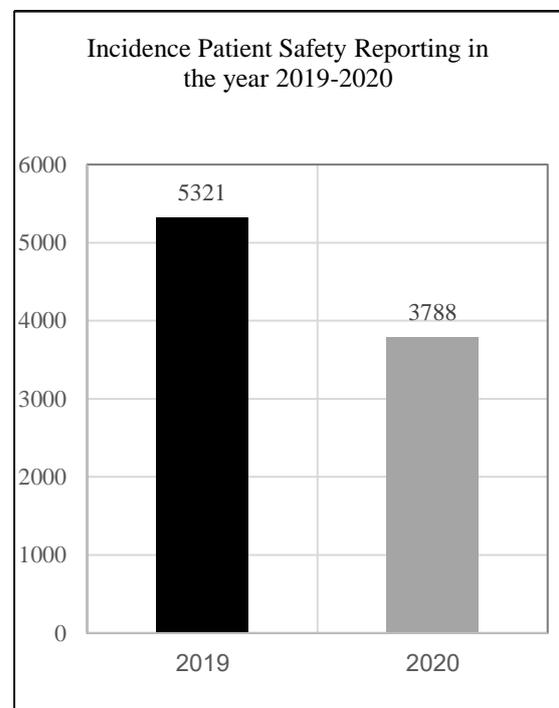


Fig: 1 Reporting and recording of patient safety at Sanglah General Hospital

Figure 1 shows that in 2019 the number of reports of patient safety incidents was as

high many as 5321 reports (58.4%) of the total reports, while the number of reports in 2020 decreased to 3788 reports (41.6%). The decline was due to often forgetting to report incidents due to the focus of service to Covid-19 patients, a patient safety reporting culture that was still lacking. The limited

availability of computers causes difficulties in incident reporting.

The decline in reports was also caused by the reduction in hospital bed rates that resulted in fewer procedures which contributed to a reduction in patient safety incidents.

Table 1: compares patient safety in 2019 to 2020

Variable	Year		Mean difference	95%CI	p
	2019	2020			
Recording and reporting (mean± SD)	161.2 ±11.7	114.7 ± 8.09	46.4	41.50-51.40	0.001*
Patient identification adherence (mean± SD)	99.37 ± 0,47	99.72± 0.14	0.34	0.64-0.04	0.026*
Effective communication (mean ± SD)	99.4 ± 0,4	98.4± 1.5	1.01	0.05-1.97	0.040*
Drug use precautions (mean ± SD)	99.06± 0,4	99.07± 0,1	0.02	1.27-1.32	0.970*
Surgical procedure accuracy (mean±SD)	93.3 ± 8.9	100± 0.0	6.6	12.01-1.34	0.016*
Prevention of infection (mean± SD)	84.03± 0.75	88.28±2.24	4.25	7.14-1.35	0.011*
Fall risk prevention (mean ± SD)	99.38 ±0.39	97.1 ± 2.03	2.1	0.95-3.43	0.001*

*Independent t-test

Table 1 shows the recording and reporting in 2019 with a mean of 161.2 (SD: 11.7), in 2020 a mean of 114.7 (SD: 8.09). The mean difference was 46.4 and p-value <0.05 (CI: 41.50-51.40). This suggests that there is a considerable variation in patient safety recording and reporting between 2019 (before the pandemic) and 2020 (during the 2020 pandemic).

The mean of reporting in 2019 was greater than that in 2020. Compliance with patient identification in 2019 was obtained with a mean of 99.37 (SD: 0.47), while patient identification compliance during the Covid-19 pandemic in 2020 was obtained with a mean of 99.72 (SD: 0.14) with a mean difference 0.34 and a p-value = 0.026 <0.05 (CI: 0.64-0.04), it can be concluded that there is a difference in adherence in patient identification between 2019 before the pandemic and during the 2020 pandemic.

The implementation of effective communication in 2019 was obtained with a mean of 99.4 (SD: 0.4) while the implementation of effective communication

during 2020 was obtained with a mean of 98.4 (SD: 1.5). The difference between the average implementation of effective communication in 2019 and 2020 was found to be 1.01, p = 0.040 <0.05, which means that there is a significant difference in the implementation of effective communication in 2019 (before the pandemic) and the implementation of effective communication in 2020 (during the Covid-19 pandemic). The implementation of drug alertness in 2019 was obtained with a mean of 99.06 (SD: 0.4) while the implementation of drug alertness in 2020 was obtained with an average of 99.07 (SD: 0.1).

The average difference between the drug alertness in 2019 and 2020 was 0.02 with a value of p = 0.970 > 0.05 (CI: 1.27-1.32). This suggests that there is no discernible difference in the adoption of drug precautions in 2019 (before the epidemic) and 2020 pandemic.

The adoption of surgical precision procedures in 2019 was obtained with a mean of 93.3 (SD: 8.9) while the

implementation of the accuracy of surgical procedures during 2020 was obtained with a mean of 100 (SD: 0.0). The average difference in the implementation of surgical procedure accuracy in 2019 and 2020 was 6.6 with a value of $p = 0.016 < 0.05$ (CI: 12.01-1.34), this suggests there is a considerable change in surgical procedure accuracy between 2019 (before the pandemic) and the introduction of surgical procedure accuracy in 2020 pandemic.

The implementation of infection risk prevention in 2019 was obtained with a mean of 84.03 (SD: 0.75) while the implementation of infection risk prevention in 2020 was obtained with a mean of 88.28 (SD: 2.24). The difference in the average implementation of infection risk prevention in 2019 and 2020 was 4.25 with a value of $p = 0.011 < 0.05$ (CI: 7.14-1.35).

This suggests that the execution of infection risk prevention in 2019 (before the pandemic) differs significantly from the implementation of effective communication in 2020 pandemic. Compliance with washing hands during the 2020 pandemic season was obtained on average higher than before the pandemic.

The implementation of fall risk prevention in 2019 was obtained with a mean of 99.38 (SD: 0.39) while the implementation of fall risk prevention in 2020 was obtained with a mean of 97.1 (SD: 2.03).

The difference in the average implementation of fall risk prevention in 2019 and 2020 was 2.1 with a value of $p = 0.001 < 0.05$ (CI: 0.95-3.43). This suggests there is a significant difference in the implementation of fall risk prevention between 2019 (before the pandemic) and 2020 pandemic.

The second phase of research is qualitative research involving 10 respondents through a focus group discussion which was held on 24 February 2021 and 25 February 2021 using zoom meeting media.

The study's findings were divided into three themes: patient safety implementation during the Covid-19 pandemic, internal and external factors influencing patient safety implementation, and management support for patient safety implementation. The characteristics of the respondents are presented in table 2.

Table 2: characteristics of qualitative research respondents

Characteristics	Respondents n=10
age (mean, SD)	36.6 ± 8.1
Employment status	
Government employees (n, %)	7 (70%)
Non-Government employees (n, %)	3 (30%)
Educational status	
Bachelor in Nursing	6 (60%)
Diploma in Nursing	4 (40%)
Working period (mean, SD)	8.8 ± 2.9

Table 2 shows that the average age of respondents in the qualitative study was 36.6 years (SD: 8.1) with 70% of employment status being civil servants and 30% being contract workers. Sixty percent of the responders have a bachelor's degree in nursing and forty percent have a nursing diploma. The average work term is 8.8 years (SD: 2.9), with the shortest working period being 5 years and the longest being 15 years. Focus group discussion was conducted with the number of Respondents (R) 10 people each group of 5 people. The results of the interview showed that the implementation of patient safety during 2020, in general, was going well as mentioned by the respondents as follows.

"In general, the implementation of patient safety has been going well, this is evidenced by the absence of unexpected events to the patient so far (R1, R2, R3)". "But there are obstacles that are non-technical in nature and affect service to patients such as electronic devices that suddenly malfunction (R4, R5)". The results of the interview on 25 February 2021 were carried out by involving 5 respondents. The results of the interview showed that there were problems with delays, especially in reporting patient safety incidents. The results of interviews with respondents are presented as follows.

"... The implementation of patient safety has been going well, but there are several problems, especially in terms of patient safety reporting. This happens because friends who work in services are still focused on serving patients so that recording and reporting are often forgotten" (R6, R7, R8, R9, R10)". The results of the interview

showed that during the Covid -19 pandemic nurses focused more on patient care and care that was safe for themselves from the transmission. The results of interviews conducted with 10 respondents through a 2-stage focus group discussion obtained data on internal constraints experienced by nurses during the implementation of patient safety as follows.

"Internal constraints faced, such as monitoring of patients at risk of falling, do not involve the patient's family, so CCTV is needed to monitor patients who are at risk of falling, especially mental patients (R1). The phone is often problematic so that the patient's family has difficulty contacting the nurse when the patient has a problem (R1, R2), inadequate wound care tools, carrying out identification is rather difficult, questions are not heard by the patient when asking the patient's identity, must be brought closer to the patient's ear (R2, R3, R4, R5), effective communication is difficult, especially when implementing the TULBAKON (Write, Read, Confirmation) stamp, availability and filling in the form surgery safety checklist still often forgets actions that require implementation of time out (R2, R3, R4, R5), central air conditioning often leaks, ventilators heat up quickly and err, monitor heat unstable temperature, carry out identification, patient wristbands often forget replaced still using bracelets from other hospitals, many balloons died for a long time not being replaced p availability is not available, the patient's family cannot be involved when monitoring the risk of falling "(R4, R5).

The results of the interview on the second day obtained the following data.

"The flow of officers is not by standards, identification is rather difficult when asking the name with the use of complete PPE, the patient does not hear it, must be brought to the patient's ear (R6), damaged equipment such as a nebulizer, leaky air conditioner reports to the response facility slow so that it causes the monitor too often an error, linen problems are often not enough to cause the fifth goal not to be maximally accomplished. Internal constraints of the existence of volunteer employees whose competencies need assistance (R7). "Reporting by telephone, many facilities are lacking such as

CCTV is not yet available, so it is difficult to monitor patients, nurse calls are often damaged so patients need officers immediately cannot respond quickly" (R7, R8, R9).

The results of the interview also found problems externally. The results of the interview are presented as follows. "External constraints the response of facility officers to repair damaged facilities is slow. Maintenance of facilities is lacking, only seen from the outside" (R2, R3, R4, R5).

The results of interviews through focus group discussions showed real problems faced by nurses in patient safety efforts. Management's participation and support are critical in the implementation of patient safety. In general, the results of interviews with 10 respondents which were carried out in 2 stages showed that hospital management was very supportive of patient safety efforts. This is evidenced by the existence of a patient safety round which is carried out regularly once a month online or face-to-face before service begins.

Discussion

Patient safety requires safe and adequate reporting mechanisms in health care, which must be enhanced and maintained throughout the Covid-19 pandemic (12). Covid-19 has had a huge impact on healthcare systems all around the world, and strong safety culture is linked to better patient safety, which has an impact on the patient-care process (11). The Covid-19 pandemic poses a high risk to healthcare workers and the threat is amplified with a lack of concern for the safety of health care workers that have so far been at a too low priority level for decades (13).

The number of patient safety records and reports at Sanglah General Hospital decreased significantly, according to the findings. The decline in inpatient visits to Sanglah General Hospital was the cause of this decrease. The culture of patient safety includes incident reporting (14). The reporting system is used not just to detect organizational deficiencies, but also to discover system vulnerabilities, promote learning, and demonstrate employee willingness to report. Following the commencement of a pandemic, the incidence

of incident reporting decreases (11). These findings emphasize the need of providing high-quality, targeted assistance in the event of future pandemics. The utility of the Australian health care incident reporting system was reviewed by Thomas et al, who discovered that the depth of information provided in the system includes the type of incident, type of error, and recovery (error detection mechanism) (15). The reporting system can play a role in minimizing patient safety risks and promoting a safety culture (16).

Patient Identification

Patient identification is the first stage used to determine the suitability of the services provided to patients. Misidentification can be divided into three categories: patient misidentification, body part misidentification, and improper use of biological material from the patient. The first group includes possible names, identification documents, social security numbers, and code mismatches, while the second category involves therapeutic action in the wrong location (17).

According to the findings of this study, there is a difference in patient identification adherence between 2019 before the pandemic and 2020 during the Covid-19 epidemic. The mean adherence to patient identification during the Covid-19 pandemic was higher than before the Covid-19 pandemic. This shows the maturity of officers in identifying patients. Patient identification compliance in this study was based on seven moments of carrying out patient identification, namely identification before drug administration, identification before blood transfusion, identification before giving a special diet, adherence before taking blood samples, compliance with identification before taking other specimens (tissue, urine, feces). Identification before performing diagnostic measures and identification compliance before performing medic procedures.

A multicenter study involving 712 hospitals in the United States looked at 2,463,727 identification bracelets, with 67,289 (2.7 percent) identifying 49.5 percent errors as a result of not wearing an ID bracelet. Between 2004 and 2008, 487 events involving patient

identification were reported in Australia, spanning numerous health systems (15). The Brazilian study involved 385 patients, 11.9% were found to have an identification bracelet error and 4.2% did not have any type of identification (18). Research related to identification was also carried out by (19) determining the usefulness of wristband identification in obstetrics clinics and in the delivery environment for infants. The overall adherence rate was 58.5 percent in the clinic and 22.3 percent in the delivery room, according to the findings. The component identification stage (93.4%) and lower wristband conditions were found to be associated with higher adherence in the clinic (70 percent) When comparing the units in the delivery room, there were statistically significant differences (19).

Effective Communication

Because many medical errors are linked to communication breakdowns between medical practitioners, effective communication is critical for patient safety. Communication breakdowns, untrained and standardized communication skills, and problems that happened during handover are all factors that contribute to communication failures (20). The findings revealed that there was a considerable difference in how effective communication was implemented. between 2019 (before the pandemic) and the implementation of effective communication in 2020 during the Covid-19 pandemic. The average communication compliance in 2020 was found to be lower than in 2019 (before the pandemic).

Miscommunication and omission of critical information are common outcomes of poorly trained and standardized communication abilities. SBAR (Situation, Background, Assessment, Recommendations) and other standard communication approaches should be implemented and developed. Transferring patient information to other staff members is a high-risk activity that requires uniformity as well as the use of checklists to avoid medical errors (20). Patient safety refers to a system in which an organization keeps patient care safer by preventing injuries caused by mistakes made as a result of taking or not taking the

appropriate action. Effective communication is one of the components of patient safety. One strategy to accomplish patient safety, according to patient safety standards, is to improve effective communication (21).

Information education communication, as well as communication of social behavior modification, are examples of social marketing. Effective communication at all levels might be jeopardized by a lack of understanding of socio-cultural, economic, psychological, and health aspects. To create a therapeutic relationship with Covid-19 patients, doctors and healthcare staff must first understand and practice several communication tactics. During a pandemic, overcoming psychology in all people is critical, and effective communication networks are the key to doing so. If effective communication is disregarded, it will create gaps for vulnerable people and make battling the Covid-19 pandemic more difficult (22). Research Puspita Dewi (2018) was discovered that there is a link between nurses' knowledge, ability, and compliance when it comes to applying good communication rules and that there are roadblocks in the way of doing so (21). The results of the analysis of 495 communication processes showed a decrease in time to treatment, an increase in nurse satisfaction with communication, and a higher level of resolution of post-intervention patient problems (23).

Precautions for Drug Use

The findings revealed that there was no substantial variation in drug precautions implementation between 2019 (before the epidemic) and 2020 (during the Covid-19 pandemic). Treatment management during the Covid-19 Pandemic has now become a top issue, both to protect employees giving drugs from getting the virus and to ensure the appropriate use of drugs that may be in short supply or may be in danger (24).

To reduce the possibility of SARS-CoV-2 contamination, medications for Covid-19 patients should be stored in the treatment ward or, if possible, in a secure drug trolley (not in inpatient rooms) (25). Medicines prescribed for a single patient (e.g., inhalers and eye drops) may be kept in the patient's room and then provided to the patient to

take home when discharged (if properly labeled by a pharmacist) (25). Drug management medicines that were meant to be stored but came into touch with Covid-19, a suspected or proved patient (or his / her room), must be deposited in a sealed plastic bag, clearly marked, and returned to the Pharmacy. For five days, these medications should be isolated (bags should be clearly labeled with the date of initial quarantine). After that, because the viral contamination of this product will no longer exist, it will last longer and will not constitute a health concern to others (25).

Australia has recently issued guidelines for treatment optimization and simplicity in response to Covid-19 (24). Between patients with stable prior scores and resolution of acute Covid-19 illness, drug-related monitoring can be discontinued. For patients receiving oral hypoglycemic medications, for example, pulse and blood pressure monitoring can be reduced to twice daily, and one finger prick to measure blood glucose can be done once daily or every other day, and once or twice daily for those using basal insulin once a day. Medicines with minimal administrative and monitoring needs, as well as formulation changes, are a tactic to reduce the risk of infection transmission to hospital employees during the Covid-19 epidemic (11,24).

Correctness of Surgical Procedures

Infection control including errors in sterilization of surgical equipment and standard precautions contribute to outbreaks (26). The findings revealed a considerable difference in surgical procedure accuracy between 2019 (before the pandemic) and the implementation of surgical procedure accuracy in 2020 during the Covid-19 pandemic. The accuracy of surgical procedures such as carrying out time-outs, marking the area of operation during a pandemic was higher.

The number of operations during a pandemic has decreased because the operating room is not ready for a pandemic. One operating room is used for one operation of a patient with SARS CoV infection. Our responsibility for patient and employee safety is not limited to infection with respiratory pathogens (26). The

accuracy of surgical procedures is useful to prevent unexpected events such as Retained Surgery Sharp (RSS). RSS is described as a missing sharp item (needle, knife, instrument, guidewire, metal shards) that was not located before the patient left the operating room and was never found (27). Weprin et al found that most of each group of respondents in their study reported 1-5 incidents of sharp disappearance during the past year. Approximately 20% of surgeons believed they had made a sharp object count error in the previous year, but only 5.3 percent of anesthetists said the same ($P=0.002$).

Each group agreed that about four sharps went missing every 1000 operations, however, there was no significant difference between the three groups when it came to the number of sharps missing per 10,000 operations with anesthetists, surgeons, and nurses ($P=0.001$). RSS has strong and important implications for improving patient safety (28). Ninety-five patients (60 percent) said they had past reservations or concerns about undertaking elective surgeries during the Covid-19 pandemic, according to the findings of research by Lee et al on surgery during a pandemic. A total of 47 patients (30%) had postponed surgery at least once due to their fears. A total of 150 patients (95%) thought precautions were made to ensure their safety (29).

According to the findings of Tan et al's study, which included 846 operating room staff and surgeons from 138 institutions, overall adherence to surgical protocols was 79.8%. When led by the nurse, surgeon adherence to the 'time-out' component was lower ($P<0.0001$). A surgical safety checklist is still an effective tool for ensuring patient safety during surgery. Adherence can be improved through cultural changes in assertiveness, nurse and surgeon-led teamwork, and checklist ownership (30). During the 2019 coronavirus illness pandemic, surgeons are responsible for their part in safeguarding patient safety. Preoperative and clinical visits, surgical appointments, and postoperative care are three main types of provider-patient interactions that can be targeted to decrease the transmission of the severe acute

respiratory syndrome-CoV-2 virus (31).
Prevention of infection

The prevention of infection risk in 2019 (before the pandemic) and prevention of infection risk in 2020 (during the Covid-19 pandemic) differed significantly. Prevention of infection is based on compliance with handwashing. The results show that hand washing adherence increases during a pandemic. Prevention of Covid-19 can be done by families by not just meeting fellow patients at the hospital who we don't know the details of other patient's problems or can say by doing lockdowns and independent isolation.

Furthermore, when taking action and holding surrounding items that do not belong to the patient's family and patients, they are required to do hygiene by washing their hands or using disinfectants so that they do not spread through the items we hold (32).

Health workers have a leading role in handling the Covid-19 pandemic. They get continuous exposure from infected patients and also the surface of the equipment that has been contaminated so that they can contract the infection or transmit the infection (33). SARS-COV2 can be transferred through droplets and close contact, thus health rules require that people exercise good hygiene, including handwashing, and wear proper protective gear (34). When treating Covid-19 patients, health staff must take droplet measures such as wearing N95 masks during aerosol-generating procedures (35).

When coughing or sneezing, healthcare personnel should encourage patients to cover their nose and mouth with a tissue or elbow, give masks for patients with suspected Covid-19, and show basic hand cleanliness, according to the World Health Organization (34).

Hand hygiene with an alcohol-based hand rub is extensively utilized around the world as one of the most effective, simple, and low-cost methods of preventing Covid-19 cross-transmission (34). Hand hygiene is one of the most important and effective infection prevention and control methods, and it helps to reduce healthcare-associated infections (36).

Fall Risk Prevention

The results showed that the implementation of fall risk prevention in 2019 was obtained with a mean of 99.38 (SD: 0.39) while the implementation of fall risk prevention during 2020 was obtained with a mean of 97.1 (SD: 2.03). The difference in the average implementation of fall risk prevention in 2019 and 2020 was 2.1, $p=0.001$. This indicates that there is a major variation in the way things are done of fall risk prevention in 2019 (before the pandemic) and the implementation of effective communication in 2020 during the Covid-19 pandemic.

Patients who fall into hospital care are recognized as serious health problems and can cause injury and complications that prolong hospitalization, reduce the patient's functional capacity and lead to increased health care costs. The impact on patient perceptions of safety and well-being can hinder a patient's ability and willingness to participate in activities from daily life and rehabilitation for fear of falling again. Acute fall risk prevention programs need to be set up in daily clinical practice (37). The findings revealed that patient safety efforts had been implemented successfully, but that some non-technical difficulties remained. The problem, especially in terms of patient safety reporting.

This happens because the nurses who work in the service are still focused on serving patients so that recording and reporting are often forgotten. Covid-19's quick growth puts health workers at risk of infection, generates concerns about the infection spreading to family members, creates uncertainty about atypical work responsibilities, and causes anguish over difficult decisions and mortality. Work schedule changes can worsen fatigue and exacerbate mental health issues, interfering with the treatment process and results (10).

Internal and external problems faced by nurses who provide services. In addition to the factors of fatigue and fear of the danger of transmission, nurses are also faced with internal problems such as monitoring the risk of falling patients not involving the patient's family so that CCTV is needed to monitor patients who are at risk of falling,

especially mental patients (R1), nurse call equipment is often problematic so that the patient's family experiences problems. Other problems experienced by nurses such as the flow of officers not according to standards. Implementation of identification is rather difficult when asking for names with the use of complete PPE, not heard by the patient, must be brought to the patient's ear (R6), damaged devices such as nebulizers, air conditioners leaked reports to the means of slow response so that it causes the monitor too often an error, the problem of linen is often insufficient, causing the fifth goal not to be maximally implemented. Internal constraints are there are volunteer employees whose competence needs assistance (R7). According to the findings of the study, external variables that affect nursing services include a lack of assistance from the facilities section to speed up the process of enhancing nursing support facilities. The results of interviews with 10 respondents who were carried out in 2 stages showed that the hospital management was very supportive of patient safety efforts.

This is evidenced by the existence of a patient safety round which is carried out regularly once a month online or face-to-face before service begins.

Nursing rounds have been effective in initiating changes to many aspects of care. The high level of communication activity might also explain the increased interaction between the nurses he identified although no other changes in nurses' perceptions of practice environment or work-life satisfaction were found to be statistically significant (38). Inpatient nursing rounds are the foundation for patient care and a dynamic tool for optimizing coordinated care including discharge planning by a multidisciplinary team. The nursing round underwent changes that contributed a lot to professionalism and opportunities for learning (39).

Nursing rooms provide a rich, real learning environment for healthcare professionals. Nursing rounds can provide a good opportunity to demonstrate and instill values, knowledge, and training for staff (39). Furthermore, it was stated that the nursing round should be carried out in a

coordinated manner by a team that regularly included clinical reviews for patients who needed medical physical needs.

The expected outcome is that clinical and social problems can be properly anticipated and managed and have good prospects for patient safety and professionalism. The results of the study by (40) show that patient safety guidelines can be used by nurse managers during rounds in inpatient wards. The qualitative research of Kirk & Kane found that the nursing round model can improve patient safety and improve the overall nurse experience (41).

The results of this study also identify the difficulties and adaptations required during acute care. Nursing rounds have also been demonstrated to reduce the risk of patients falling by 23%. While this is not statistically significant, the reduction in the incidence of patients falling (23%) is clinically important. Leadership is essential during a pandemic crisis but leaders often lose feedback, lessons, and perceptions and so need help to provide feedback driven by mutual respect.

The leader must assist in the creation of intense, concise, and open communication circumstances regarding the current situation. Support situational awareness and monitoring of the pandemic's situation and impact, particularly the consequences on the care of patients with non-pandemic diseases (42).

Limitations Patient safety is a critical issue that must continually be improved, but ethical research rules must be established so that this study solely focuses on six patient safety goals. Due to the irregularity of report data, this study has limitations, particularly in terms of disclosure, the incidence of injury, and unexpected events.

Conclusions

Patient safety data was recorded and reported less often during the Covid -19 epidemic, owing to fewer hospital visits. Before and during the Covid-19 epidemic, patient identification differed.

Officers serving patients who are more focused on the condition of patients with Covid-19 appear to be the source of this identification problem. Communication during the Covid -19 pandemic has decreased because nurses are faced with

new diseases that raise concerns in transmission, use of complete PPE so that voices are less clearly heard. Because the Covid-19 pandemic has resulted in fewer visits to non-Covid-19 patients, there is no difference in drug alertness. This allows pharmacy officers to focus more on providing services to patients. There is a significant difference in the accuracy of surgery before the Covid-19 pandemic and during the Covid-19 pandemic.

The cause of this problem is when officers in the operating room are faced with a situation with a new, highly contagious viral disease so that several components of the implementation such as the surgical checklist, time outs, and signouts are forgotten to speed up the operation process with the operating room situation that does not meet the management standards for covid patients. 19. There are differences in infection prevention between before the Covid-19 pandemic and during the Covid-19 pandemic, especially handwashing compliance. This epidemic has had a significant impact on officers' and other hospital staff's compliance with the policy of constantly washing their hands.

There was no difference in fall prevention between pre-pandemic COVID-19 and during COVID-19. This happened because the number of patients who were not covid-19 experienced a decrease in hospital visits because they were afraid to seek treatment unless it was an emergency.

This study can be used to develop patient safety regulations that will help to maintain the quality of health care. The study's findings are intended to help improve patient safety, which has implications for enhancing healthcare quality. They can also be utilized as a source of information to help mitigate the detrimental effects of the Covid-19 pandemic on patient safety. Recommendations to hospital administration with a focus on staff education, patient safety rounds, and the maturity of the patient safety culture.

Author Contribution

NG (research concept, preparation of research protocol), PS (data collection, data analysis), MS (research method, research discussion), PA (supervisor and research consultant), GS (research method, research discussion).

Approval Letter

This study obtained ethical feasibility procedure and received ethical clearance from the Udayana University Independent Commission with letter number: 824 / UN14. 2.2. VII.14 / LT / 2021

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